DETERMINANTS OF FIELD TAX AUDITORS' PRODUCTIVITY: A CASE OF INLAND REVENUE BOARD OF MALAYSIA KLANG VALLEY TAX AUDITORS

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ABSTRACT

The significant variation of productivity among field tax auditors of company taxpayers (FTACs) can be reduced by deploying the most productive officer to the field audit for the company; whereby indirectly the audit coverage can be enhanced. Accordingly, higher audit coverage is expected to enhance tax compliance. Presently, the Inland Revenue Board of Malaysia (IRBM) has not yet implemented a systematic method in deploying officers to the field tax audit unit throughout Malaysia. Hence, the result can also be used as a reference in designing future human development programmes in the IRBM. This research examines the determinants of the productivity of FTAC in the IRBM. Several variables were identified and broadly classified into human capital talents, demographic characteristics, religiosity, motivation, job satisfaction and happiness. Data were analyzed via the Multiple Regression analysis which were initially sourced from a survey. The total population for the study was 457 FTACs in Malaysia. A sample of 176 respondents was selected via purposive sampling techniques among FTACs who were serving in all IRBM's branches within Klang Valley. The research findings revealed that job satisfaction positively affects FTAC's productivity, while age is an important determinant as older FTACs tend to be less productive. FTACs with science and applied science backgrounds, and those who have served longer in IRBM tend to be less productive. However, field auditors who have more than six years of auditing experience in the current job assignment are more productive. The findings provide enlightenment on the vital determinants of the FTACs that can be used as the basis for conducting further research. Besides, more attention to the question of why some variables are not significant to the productivity of FTACs can be put forth.

Keywords: Productivity, religiosity, motivation, job satisfaction, happiness.

ABSTRAK

Variasi produktiviti kerja yang signifikan dalam kalangan Pegawai Audit Luar yarikat (PALS) boleh dikurangkan dengan menempatkan PALS yang lebih produktif ke unit audit luar syarikat; di mana secara tidak langsung akan meningkatkan liputan audit. Sejajar dengan itu, peningkatan liputan audit dijangka akan dapat meningkatkan pematuhan cukai. Pada masa kini, Lembaga Hasil Dalam Negeri Malaysia (LHDNM) belum lagi melaksanakan kaedah yang sistematik dalam pemilihan pegawai untuk ditempatkan ke unit audit luar di seluruh Malaysia. Oleh itu, dapatan kajian ini juga boleh digunakan sebagai rujukan dalam merancang program pembangunan insan masa hadapan di LHDNM. Kajian ini mengenal pasti penentu-penentu bagi produktiviti PALS di LHDNM. Beberapa pemboleh ubah telah dikenal pasti serta diklasifikasikan sebagai keupayaan modal insan, ciri-ciri demografi, pegangan agama, motivasi, kepuasan kerja dan kegembiraan. Data dianalisis menggunakan analisa Regresi Berperingkat yang bersumber dari kaji selidik. Populasi kajian terdiri daripada 457 PALS di Malaysia. Terdapat sebanyak 176 sampel telah dipilih menggunakan teknik persampelan bertujuan di kalangan PALS yang sedang berkhidmat di semua cawangan LHDNM di Lembah Kelang. Dapatan kajian menunjukkan bahawa kepuasan bekerja mempengaruhi produktiviti PALS secara positif sementara umur mempunyai pengaruh penting di mana apabila umur meningkat, PALS cenderung menjadi kurang produktif. PALS yang mempunyai kelayakan dalam bidang sains dan sains gunaan, dan mereka yang telah berkhidmat lebih lama dalam LHDNM cenderung menjadi kurang produktif. Walau bagaimanapun, PALS yang mempunyai pengalaman melebihi enam tahun dalam tugasan audit sekarang adalah lebih produktif. Dapatan ini menawarkan pencerahan ke atas penentu penting terhadap PALS yang boleh digunakan sebagai asas untuk menjalankan kajian lanjutan pada masa hadapan. Di samping itu, perhatian yang lebih ke atas persoalan kenapa beberapa pemboleh ubah tidak signifikan kepada produktiviti PALS boleh diketengahkan.

Kata kunci: *Produktiviti, pegangan agama, motivasi, kepuasan kerja, kegembiraan.*

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LIST OF ABBREVIATIONS

IRBM	Inland Revenue Board of Malaysia
LHDNM	*Lembaga Hasil Dalam Negeri Malaysia*
EO	Executive Officer
FTAC	Field Tax Auditors of Company
PALS	*Pegawai Audit Luar Syarikat*
GDP	Gross Domestic Product
IFTA	Individual Field Tax Auditor
CPCB	*Cawangan Pembayar Cukai Besar*
CKLB	*Cawangan KL Bandar*
JHDN	*Jabatan Hasil Dalam Negeri*
BSC	Basic Service Course
HBM	Health Belief Model
TPB	Theory of Planned Behaviour
OECD	Organization for Economic Cooperation and Development
KMO	Kaiser-Meyer-Olkin
BTOS	Batlett's Test of Sphericity
VIF	Variance Inflation Factor

CHAPTER ONE

INTRODUCTION

1.1 Background of the study

Tax non-compliance problems particularly under-reporting of income have been investigated extensively since the emergence of the theoretical study on tax evasion by Allingham and Sandmo (1972). Similar theoretical study was conducted by Srinivasan (1973), marking the beginning of more studies in the field of tax evasion, expanding beyond theoretical studies. The basic preposition of the two earliest studies stemmed from the contention that tax enforcement (audit) and punishment (penalty for evasion) have positive impact on taxpayers' compliance behaviour. Further studies on the same subject (some through different methods and perspectives) are carried out by various scholars i.e., Kahneman and Tversky (1979), Spicer and Thomas (1982), Clotfelter (1983), Witte and Woodbury (1985), Spicer (1986), Crane and Nourzad (1986), Feinstein (1991), Engel and Hines (1999) and Dhami and al-Nowaihi (2004). These scholars tried to answer several questions relating to tax evasion, in particular: (1) Why people evade tax or under-report their income to the tax authority? and (2) The effectiveness of some measures to improve tax compliance, such as tax enforcement measures, imposition of penalty and punishment for tax evasion, and the selection of appropriate tax rate schedule.

In general, studies on tax non-compliance and tax evasion have led to a conclusion that strengthening tax audit policy and practice are among the most important measures to deter tax evasion and under reporting of income tax. Three elements of tax audit are identified under the literature, i.e., the tax audit selection (Cowell, 1985;

Reinganum & Wilde, 1985), the tax audit coverage (Allingham & Sandmo, 1972) and the audit efficiency (Feinstein, 1991). The tax audit coverage is the broad main subjects related to this research. The focus would be on the productivity of auditors working in the field audit unit of company taxpayers.

The IRBM employs multiple strategies to fight the problem of income underreporting. These strategies are illustrated in tax compliance model as briefly mentioned in the Inland Revenue Board of Malaysia (IRBM) Corporate Plan 2012-2015 (LHDNM, 2012, pp. 20-21). The tax compliance strategies are further outlined in the IRBM Corporate Plan for 2016-2020 (LHDNM, 2016). One of the most important strategies is tax audit strategy, a deterrent tool aiming at taxpayers who do not comply or deliberately do not comply with the tax laws.

Table 1.1 below provides a broad hint about the status of tax auditing on company taxpayers in Malaysia. The high tax audit settlements for the year 2013 (RM3,023,571,316), 2014 (RM2,307,798,760) and 2015 (RM7,783,693,882) indicates the existence of income underreporting problem. The settlement figures reflect the amount of additional income tax and penalty because of audit exercises carried out throughout the year.

Table 1.1
Audit settlement, IRBM Malaysia

Category of taxpayer: Company	Amount of tax raised, and penalty imposed		
	2013 (RM)	2014 (RM)	2015 (RM)
Field Audit	643,646,975	911,677,054	3,777,535,543
Desk Audit	2,379,924,341	1,396,121,706	4,006,158,339
Total	3,023,571,316	2,307,798,760	7,783,693,882

Source: *IRBM unpublished data (accessed June 2016)*

There are two types of tax audit, namely the desk audit and the field audit. It has been a practice by the IRBM that the desk audit method is used to check less complicated types of tax non-compliance such as errors in arithmetic, verification of simple claims, as well as to process refund and repayment cases. During the desk audit process all verifications on a taxpayer's reported income are based on the documents provided by a taxpayer, explanation through correspondences, telephone conversations or during a meeting at IRBM's premises. In contrast field audit is employed to detect more complex types of under-declaration of taxable income. In most cases a field audit requires several days of pre-arranged visit at taxpayer's premises, during which verification on a taxpayer's reported income will be carried out. Field audit visit usually involves two to four IRBM's officers depending on the availability of resources and complexity of the audit case. In a case of suspected severe tax evasion, the IRBM employs a more lethal approach that is through tax investigation (civil or criminal). Both field audit and investigation methods require extensive deployment of resources and therefore more expensive to implement

compared to desk audit. It is therefore understood why the number of field audit cases is fewer compared to desk audit cases as shown in Table1.2.

Table 1.2
Number of companies audited

Year	Number of company cases audited				Percentage on the number of active taxpayers		
	Field Audit (FA)	Desk Audit (DA)	Total Audited (TA)	Number of active taxpayers	Field Audit	Desk Audit	Total Audit
2013	11,690	71,403	83,093	526,919	2.2%	13.6%	15.8%
2014	15,866	82,749	98,615	567,662	2.8%	14.6%	17.4%
2015	16,317	121,886	138,203	620,015	2.6%	19.7%	22.3%

Source: *IRBM various internal reports (unpublished data accessed June 2016)*

Table 1.2 shows field audit coverage of company taxpayer for the period of three years. It highlights discouraging fact of low field audit coverage. The field audit coverage of the range from 2.2% to 2.8% is a serious concern in the long run, because fear factor might be fading over time when a tax evader is not audited within a reasonable time. In line with Section 82A (1) of the Income Tax Act 1967, a taxpayer is only required to keep records for IRBM's inspection for seven years. If a taxpayer is not audited within the 7-year period, any normal under declaration of income might not be uncovered through audit method due to unavailability of documents. It could therefore lead to a more deterioration of tax compliance. Nonetheless this fact does not significantly affect the productivity of field tax auditors because field audit will be only conducted on the latest 3 years of assessment at maximum unless special circumstances arise which is rare. Relatively,

the determinants that probably could give impact on field tax auditor's productivity is crucial to be explored.

The low field audit coverage has been continuously addressed by the IRBM through more effective tax risk analysis, training, acquisition and deployment of additional resources to the field audit activities, however there is a limit. For example, the addition of new tax auditors cannot be realised in a timely manner because of the long process involving the Public Service Department and the Ministry of Finance who have the control for the allocation for the new posts. Internal unpublished records of IRBM indicate that from year 2000 to 2012 the applications for new additional post of Executive Officer (Assessment) require 12.4 months period (on average) to get approval. In addition to this, an additional post cannot be filled until budget are approved and allocated. A budget approval for the additional approved post could take anytime from six months up to one year. The above process is expected to be shortened with the transformation of the IRBM to be a self-financed agency from January 2015 as enshrined in the Inland Revenue Board of Malaysia Act 1995, where the IRBM would has the autonomy in human resource and financing. However, the period from the point of intake of new executive officer up the point which they are fully trained to do audit works remained the same. It usually takes about two years for a new executive officer to be fully trained on preliminary tax courses at the Malaysian Tax Academy, after which an officer is considered equipped with the necessary knowledge to conduct a field audit work. Indeed, basic screening of determinants would be helpful prior to the recruitment in ensuring the productivity among the field tax auditors achieved the expected target.

Enhancing the field audit coverage without committing huge additional resources is an enormous challenge to the IRBM. Barring all abnormal circumstances, the field audit coverage could be enhanced (within the existing means) if the IRBM can identify the most productive officers to be deployed in the field audit team. Currently the decision to designate an executive officer to the field audit teams is based on the best judgment of an IRBM's branch director. There are no standard and objective evaluation criteria nor certain pre-determined characteristics or list of factors that can help the branch director to make a better decision. Because a transfer of an officer in and out from the field audit unit can practically be done at the discretion of a branch director anytime, any mistake in the selection of officer can be rectified later after certain period say two to three years. However, transferring a low productivity officer out of the field audit unit after serving there for few years is costly in term of opportunity cost. Those officers could have done better in other units such as in desk audit work. In general, transferring in and out of officers at frequent interval may also negatively impact their morale and motivation and thus, impact their productivity at their new assignments. However, this is merely a perception of the researcher based on experience and practice in the organization.

Based on experience of IRBM branch directors in the past, error in transferring officers to the field audit team can be avoided or minimized if there is a set of known characteristics of a high productivity potential tax auditor. An IRBM's branch director can use these characteristics to assist in the evaluation of a suitable officer to be deployed in the field audit team.

1.2 Problem Statement

According to the IRBM practice, the audit coverage refers to the number of field audit carried out on taxpayers in a year as compared to the total number of registered taxpayers in that year[1]. It is expected that when tax audit coverage increases, the tax underreporting behaviour decreases (Allingham & Sandmo, 1972). One of the most direct ways to increase audit coverage is to increase the number of auditors. Another way is to increase the productivity of each tax auditor. In the latter case, every tax officer must audit and conclude more cases. The first method is not always possible due to financial and human resource constraints faced by IRBM. The second method is possible through the deployment of productive tax auditors to do tax field audit. Thus, the researcher perceives that it is important to identify the factors that influence the tax auditor's productivity. Once the factors are identified, then auditors who possess certain productive characteristics can be deployed in the field audit work for more overall audit coverage and thus better for tax compliance. The lesser productive officers in the field audit can be redeployed to other tax functions which require less demanding skill compared to field audit work.

Based on unpublished internal paper written by IRBM officer, the percentage of direct tax collection over Gross Domestic Product (GDP) in 2016 was 9.24%. The direct tax collection was RM113.945 billion, whereas GDP was RM1.233 trillion. This percentage is very much lower compared to the maximum income tax rate of Malaysia in that year which is 28% for individual taxpayer and 24% for company. The lower percentage of direct tax collection over GDP indicates that tax compliance in Malaysia has not yet reaches the best level.

[1] This is purely based on the researcher's experience as an official of IRBM

Table 1.3 is the summary statistics of total field audit cases settled or concluded by individual field tax auditor (IFTA) serving at *Pembayar Cukai Besar* Branch (CPCB) in 2016. For clarity, column A contains statistics on field tax audit cases settled based on total number of files, whereas column B contains the total number of field tax audit cases settled based on year of assessments measurement. Every file consists of one taxpayer, whereas every taxpayer might be audited for several years of assessments. Table 1.3 indicates large variation of settlement among individual field tax auditors. In the year 2016, a total of 98 IFTA in CPCB settled 756 files (column A), which comprised of 1,921 assessments (column B). Based on column A, there was IFTA who could only manage to settle 3 files in 2016 while there was IFTA who is able to settle 18 files. The gap of settlement between lowest productive and highest productive IFTA is bigger when field audit settlement is measured based on the number of year of assessments. As shown in column B of table 1.3, the most productive IFTA could settle 38 assessments as compared to merely 5 assessments for the lowest productive IFTA. On average IFTA could settle 8 and 20 number of files and assessments respectively. This statistic indicates that some IFTA are very productive whereas some are not. If all officers are productive then it is possible for the IRBM to audit more cases. In this example, by taking the extreme lower, if all the 98 IFTAs in CPCB are extremely less productive, the total audit files concluded in the year 2016 would had been only 294 files. On the other hand, taking the extreme maximum, the highest possible audit files that could be settled by the same 98 IFTA would had been 1,764 files. Using this argument, one of the least expensive measures to increase audit coverage is through the deployment of the most productive auditors to the field audit team. There could be some issues in interpreting the statistic in Table 1.3 due to uneven distribution of difficult cases, or officers are auditing

different type of business and industry. However, this issue is not considered serious in this research, because the work norm is standard for all field tax auditors auditing company cases in Klang Valley. The work norm is presented in Table 2.1 in Chapter 2. In view of this standard norm, it is assumed that the Audit Manager will distribute audit cases evenly in term of difficulty, failing which field tax auditors may complaint because the annual performance appraisal will be based on the audit settlement of the officer.

Table 1.3.
Summary statistics of field tax audit settlements of field tax auditors serving at Cawangan Pembayar Cukai Besar (CPCB) IRBM for the year 2016

	A	**B**
Total settlement	756	1,921
Average	8	20
Minimum	3	5
Maximum	18	38
Mode	8	20
Standard Deviation	2.11	6.10
Number of tax auditors	98	98

Source: Data collected in this research

A – The settlement of field audit cases by field tax audit officers, measured based on the number of company taxpayers.

B - The settlement of field audit cases by field tax audit officers, measured based on the number of assessments.

At present, identification of the most productive officer is based on "trial and error" method which is costly. This research is an attempt to uncover the possible determinants of a tax auditor's productivity. These determinants if known can assist in the decision-making process of selecting the field audit team members, thus potentially benefits the IRBM in term of avoiding the possible unnecessary direct

and indirect cost of the current "trial and error"[2] method as practice in various branches in IRBM.

Based on the review of productivity literatures, the productivity of workers in general are affected by several factors. One of the factors is individual demographic characteristics such as gender, age and marital status. Demographic characteristics and productivity has been studied by Vandenberghe and Waltenberg (2010), Dostie (2006), Roger and Wasmer (2009), Dearden, Reed, and Reenen (2006), Turner and Mairesse (2003), The World Bank (2012) Leahey (2006) Barro and McCleary (2003), Wiseman and Young (2014), and Osnam-Gani, Hashim, and Ismail (2010).

The level of individual knowledge, skill and experience which include proxies such as education background, academic qualification, training and tenure on the job are also found to affect the productivity of workers. These factors were studied by Holzer (1988), Pells, Steel, and Cox (2004), Dearden et al. (2006), Aghazadeh (2007), Medoff and Abraham (1980), Maranto and Rodgers (1984), Dunston (1985), and Papay and Kraft (2013).

Other factors identified in the literatures include individual drives such as self-motivation, job satisfaction, and happiness as in the studies of Bockerman and Ilmakunnas (2010), Schmitz (2003) and Al-Ayouty (2011). In addition enablers and external factors such as supervision level, team work, work environment, and work-support facilities are also affecting productivity of workers as in the study of Schmitz (2003) .

[2] The practice of this “trial and error” method is based on the researcher’s experience of working in various branches in IRBM as Branch Director.

While all the above provide excellent insight into the factors affecting productivity in general, these factors cannot be readily used as criteria in selecting the most productive tax auditors as in IRBM's case. The reasons are mainly because none of the researches addresses the issue of individual productivity in government sector, specifically individual employee in the tax authority. Furthermore, the IRBM is unique because it is the only entity that administers the direct tax in Malaysia. As such the study of individual productivity in this environment requires special treatment.

1.3 Research Questions

The research questions of this research are as follows:

1. What is the level of human capital talent (knowledge; training; and experience), religiosity, motivation, job satisfaction, happiness and productivity among field tax auditor in IRBM?;

2. Is there any significant difference in human capital talent (knowledge; training; and experience) and demographic (age, gender and marital status) with regards to productivity among field tax auditor in IRBM?; and

3. What is the relationship between religiosity, motivation, job satisfaction, happiness and productivity among field tax auditor in IRBM?

1.4 Research Objectives

In line with the research questions, the research objectives are as follows:

1. to determine the level of human capital talent (knowledge; training; and experience), religiosity, motivation, job satisfaction, happiness and productivity among field tax auditor in IRBM;

2. to determine the significant difference in human capital talent (knowledge; training; and experience) and demographic (age, gender and marital status) with regards to productivity among field tax auditor in IRBM; and

3. to determine the relationship between religiosity, motivation, job satisfaction, happiness and productivity among field tax auditor in IRBM.

1.5 Scope and Assumption of the Study

This study is conducted within the scope of field tax auditor serving in IRBM's branches located in Klang Valley. This is because the tax audit coverage for field audit is far lower than desk audit (see table 1.1 and 1.2). The field tax auditors are responsible for the execution of field audit programme, while the desk tax auditors are responsible for the execution of desk audit programme. In particular to the Klang Valley, the field tax auditors are from the *Pembayar Cukai Besar* Branch (CPCB), Jalan Duta Branch, KL Bandar Branch, Cheras Branch, Petaling Jaya Branch, Shah Alam Branch, Wangsa Maju Branch and Klang Branch. The focus is on the Klang Valley due to the majority of field tax auditors are deployed in this area. Based on the information from IRBM's Human Development Department (*Jabatan Pembangunan Insan*), the total number of field tax auditors in IRBM in year 2016

was 437 of which 256 officers (or 58.6%) are deployed in various branches in Klang Valley.

In addition to the scope, this study is based on several assumptions:

1. Field tax auditors are assumed to know and understand about productivity.
2. Respondents are assumed to understand the questions listed.
3. All of the questions on the questionnaires are assumed to be answered freely without bias, not influences as well as pressure by any parties and not copying.
4. Samples of the study are assumed to be sufficient to represent the population.
5. The validity and reliability of the instruments are assumed to be consistent as the output from a pilot study.

1.6 Significance of the Research

The issue of tax non-compliance is very important to the IRBM and Malaysia in general. Non-compliance directly determines how much tax is collected. Higher tax revenue can only be achieved if there is high level of compliance. Common sense tells that a country cannot afford to have a situation of "one police for one criminal". This reflects a situation of the necessity to have an efficient resource allocation and ensuring appropriate deterrent of an enforcement effort. The same principle applies to the ways the IRBM manage taxpayer non-compliance. The IRBM has limited resource to cope with the increasing number of taxpayers as well as to cope with increasing complexity of auditing task over time. This research contributes in a way to ensure that the right tax auditors are deployed to the field audit works with the intention to achieve impact on tax compliance.

The tax officers in the field audit team for the company taxpayers are targeted in the study because this sector (company taxpayers) exhibits low field audit coverage. Table 1.2 indicates the field audit coverage of company taxpayers for the period from 2013 to 2015. Despite some increases in the absolute number of field audits been carried out, the proportion of this number as compared to the total active taxpayers had indeed decreased in 2015 as compared to 2014 (i.e., 2.6% and 2.8% respectively). This is because the number of active taxpayers had also increase and at a faster pace. Internal unpublished data of the IRBM in year 2014 shows that the total number of executive officers in year 2008 was 2,556. This number remained unchanged until year 2013, a period of 6 years. Officers in the field audit consist of officers at executive level at minimum. The difficulty to get additional human resources in shorter time could have some impacts on the audit coverage and furthermore any failure to deploy the most productive officers to the audit field of company taxpayers is detrimental to the deterrent effect of field audit in this sector. As such the findings of this study could help identify the characteristics of potential candidates for future IRBM's recruitment of tax auditors. This is especially true in the case of academic qualification and prior experience of the prospective employee.

The findings of this study could also assist the IRBM to design specific programmes to enhance the productivity of the IRBM officers to be deployed in the field audit unit and those officers who were already serving in the field audit unit. This is basically by reviewing the knowledge, skill and training experience acquired throughout the service period.

Putting it together, this research hopefully can help the IRBM enhance the recruitment process, develop efficient deployment and capacity building of field tax auditors particularly the IRBM's branches in Klang Valley. Finally, the research can be replicated from time to time to keep up with internal development of the IRBM.

1.7 Definition of Key Terms

There are some important key terms are used in this study can defined as follow:

Field Tax Auditor

Field tax auditor is an Executive Officer (Assessment) that is assigned to conduct field tax audit. Further elaboration of field tax audit is available in section 2.6 in Chapter 2.

Desk Tax Auditor

Desk tax auditor is an Executive Officer (Assessment) that is assigned to conduct desk tax audit. Further elaboration of desk tax audit is available in section 2.6 in Chapter 2.

Productivity

The productivity in this research refers to the number of outputs produced by a field tax auditor (as one unit of input) in a particular year. In this research, the year concerned is year 2016. The output is measured based on the number of audit cases, the number of audit files concluded in a year as well as the result of an audit in term of the value of RM discovered through the audit exercise. A more detailed measurement is provided in section 4.6.1.

1.8 Organization of the Thesis

The rest of this research consists of five chapters which cover the Inland Revenue Board of Malaysia in Chapter 2; the literature reviews in Chapter 3; Research Methodology in Chapter 4; Research Findings in Chapter 5; and Discussions, Recommendations and Conclusions in Chapter 6. The overview on the practice of IRBM is detailed in the Inland Revenue Board of Malaysia section. The literature reviews section contains survey of factors that affect the productivity in general. The research methodology contains detail deliberation and description of the research hypotheses, research design, sampling strategy as well as the analytical framework of the research. Finally, the last section provides analysis of the result, discussion on the results, policy recommendation for IRBM and conclusion.

CHAPTER TWO

TAX ADMINISTRATION IN INLAND REVENUE BOARD OF MALAYSIA

2.1 Introduction

This chapter contains brief description about several important issues on IRBM. The discussion will focus on issues that relevant to this research namely the general function of IRBM, recruitment of new officer, the training of officer, deployment and redeployment of officer, and finally enforcement and audit activities. It is crucial to add this chapter to provide clarity to the subject under this research.

Almost all facts presented in this section are not available in public domain; therefore this chapter depends heavily on expert reference from the researcher's own experience of over 30 years serving with IRBM. In addition, reference will be explicitly made to condition of IRBM in year 2016 as this study.

2.2 General Function of IRBM

Before 1996 the role of administering direct taxes in Malaysia was under the responsibility of *Jabatan Hasil Dalam Negeri* (JHDN). After the passing of the Inland Revenue Board Act 1995 (*Akta Lembaga Hasil Dalam Negeri* 1995), the role of JHDN was assumed by Inland Revenue Board of Malaysia (IRBM). IRBM was essentially the old JHDN except that it has special autonomy on finance and human resource. As a consequence of the autonomy the IRBM has some freedom in managing and arranging its financial affairs using a budget allocation from the federal government consolidated fund. The IRBM is also fully responsible for its

human resource management such as recruitment, training, career development, and employee welfare.

In year 2016, the IRBM is responsible to administer major direct taxes namely the income tax, petroleum tax, stamp duty, real property gains tax, and Labuan offshore business activity tax. Administration of all the taxes (except stamp duty) typically involves the following steps:

i- Identification and registration of taxpayers.

During this stage all persons who are liable to pay tax under the law are required to register as taxpayer. Each taxpayer will be provided with a unique tax file number which is used as an identification of a taxpayer.

ii- Administration of tax returns

Filing of tax return is an annual event for every liable taxpayer under the respective income tax, petroleum income tax and Labuan offshore business activity tax. For real property gains tax, filing is required when one disposed an immovable property.

iii- Collection of tax dues

Collection of income tax and petroleum tax is done throughout the year. If payments are made before the filing, all payment will be credited to the taxpayer's tax account. After a taxpayer filed a tax return, and the actual tax due is determined, any advance payment or credit will be utilized to pay the tax due. If the credit or advance payment is not sufficient to cover the actual

tax due, the taxpayer is required under the law to settle the unpaid amount within a stipulated time. If the credit or advance payment is more than sufficient to cover the actual tax due, the excess will be returned to taxpayer.

iv- Enforcement

Enforcement is necessary at all steps of the tax administration above. At the registration and identification stage, the IRBM typically detects unregistered potential taxpayers by using various methods. One of the methods is the detection of potential taxpayers with the use of extensive database that built upon various sources of information. Another method is through unannounced "friendly visit" at certain pre-identified location.

At tax return filing stage, enforcement is necessary to ensure that all taxpayers that should be filing their returns do so on time. IRBM regularly prosecutes taxpayers who failed to file their tax returns on time. It is also necessary to ensure that those who already filed their tax returns truthfully report their actual taxable incomes. IRBM detects unreported or underreported taxable incomes through audit and investigation activities.

At the collection stage, certain taxpayers are required to pay their tax liabilities in advance based on their estimated income in the year. For employed individual taxpayers, their employers are required to remit tax payment on monthly basis based on the monthly deduction schedule. It is a requirement for company taxpayers to estimate their taxable income and thus estimated tax during the beginning of a basis period. They are then required

to spread the payment of the estimated tax liabilities over a period of time usually until the end of the basis period. IRBM monitors and enforces the advance payment and this includes imposition of penalty and prosecution when necessary. If the advance payment is not sufficient to cover the actual tax due, and the extra payment required is not settled within the allowed stipulated period, the IRBM may compel the taxpayer to make necessary arrangement to pay. In the case where taxpayer failed to pay the balance after an arrangement is allowed then the IRBM may prosecute the taxpayer or alternatively use other methods to recover the unpaid tax liability. Some examples of other methods are caveat of properties, and travel ban to overseas.

2.3 Recruitment of New Executive Officer (assessment)

According to IRBM's *Jabatan Pengurusan Insan*, there were 10,819 employees of IRBM in 2016. These employees consist of many levels with different job functions such as taxation, administration, logistic, information technology, and finance. In line with the role of IRBM as tax administrator the main job function in IRBM is taxation function which commands 74.57% of the total IRBM workforce. In this section, the description on recruitment of officers will focus on officer of taxation function at entry level i.e., Executive Officer Grade 41 (assessment) (EO). It is because officers to be deployed in the field tax audit are selected from the pool of EO.

The recruitment process of EO begins with advertisement where the prospective candidates are required to fill in a specific online form. The qualification for the EO post is graduated in any discipline. In principle qualification in professional

accounting is considered more valuable, and this forms a basis for higher starting salary for EO who had professional accounting qualification. Shortlisted candidates for EO post will be called to sit for online exam and further shortlisting is made based on the exam result. The shortlisted candidate will be called for job interview which is the final process before actual selection of officer is made.

2.4 Training of Executive Officer (assessment)

All newly recruited EOs are required to attend series of courses. According to the Director of Malaysian Tax Academy, new EO recruits begin with induction programme at the Malaysian Tax Academy for eleven (11) days. The attendance for the induction programme is compulsory; however participants are not required to sit for an examination. The contents of the induction programme are mainly about the functions of IRBM, introduction to core values of IRBM, positive work ethics, and team building.

After the completion of the induction programme, all new EOs are required to attend Basic Service Courses (BSC) and must pass all evaluations and examinations. The BSC consists of several courses, each with evaluation in the form of course works and final examinations. In 2016 the BSCs consists of five courses namely Taxation, Administration, Finance, Information Technology, and General Law. The Taxation course is further divided into two parts namely Employment Taxation and Business Taxation, in which each comes with examination. EOs can only be considered for post confirmation once he/she had passed all the examination papers in BSC and had attended induction course successfully.

EO who had been confirmed in the post as EO is eligible to attend advanced courses. The advance courses consist of four examination papers, i.e., Law 1, Law 2, Account and Tax Audit. All EOs are required to attend the advance course. Although passing advance course is not compulsory, an EO can only be considered for job promotion once he/she had passed all the examinations in advance course. The advance course is an extension of the tax law course, and audit and account course in the BSC. The skills acquired during the advance course could help EO greatly in their various duties in IRBM including desk and field audit works.

2.5 Deployment of Executive Officer

Almost all EOs in IRBM are doing works directly related to taxation i.e., surveillance and profiling, revenue recovery, civil and criminal prosecution, audit, and investigation. Newly recruited EO are normally assigned to easier taxation functions such as profiling, revenue recovery, prosecution, and desk audit for individual business taxpayers. After an EO had accumulated certain skill and practical experience an EO is then allowed to do more complicated and challenging task such as field audit for companies and investigation works. There is no time frame for an EO in a particular task. Except for investigation task, the responsibility for assigning tasks to EOs rest on branch directors based on his/her best judgment. The selection of EOs for investigation task is done by Human Development Department (*Jabatan Pembangunan Insan*) based on the advice of top management.

2.6 Tax Audit Activities

More descriptions on tax audit activities are presented in this section because the subject matter of this research is about the productivity of field tax auditors for company taxpayers. According to tax audit framework issued by IRBM in 2009, "*A tax audit is an examination of a taxpayer's business records and financial affairs to ascertain that the right amount of income should be declared, and the right amount of tax should be calculated and paid are in accordance with tax laws and regulations*"

Figure 2.1 show the structure of tax audit in IRBM. Tax audit is divided into two major activities namely desk audit and field audit. Desk audit is further divided into desk audit for individual taxpayer with employment income, desk audit for individual with business income, and desk audit for company taxpayers. On the other hand, field tax audit consists of two field audits for individual business with business income and field audit for company taxpayers. There is no field audit for individual taxpayer with employment income.

A desk audit is conducted at IRBM's office. It is usually for uncomplicated issues or tax adjustments which can be effectively done through correspondence. In addition, a taxpayer can also be called at IRBM office to provide further information and clarification on certain issues if necessary. Desk audit does not normally involve full checking of taxpayer's business records but rather on specific issues in relation to taxpayer's income tax return. Such specific issues could be income issues, expenses issues, as well as claims for reliefs and deductions.

A field audit is conducted at taxpayer's premise. Work in field audit involves the examination of the taxpayer's business records. Field audit is conducted when the tax issues can no longer be effectively dealt with desk audit method. During the field audit visit non-business records such as personal bank statements, etc. can be inspected especially when taxpayer's has incomplete business transaction records. Advance notice of visit to taxpayer is issued prior to a field audit visit. Field audit visit is conducted in team comprising of two to three EOs headed by the audit case owner.

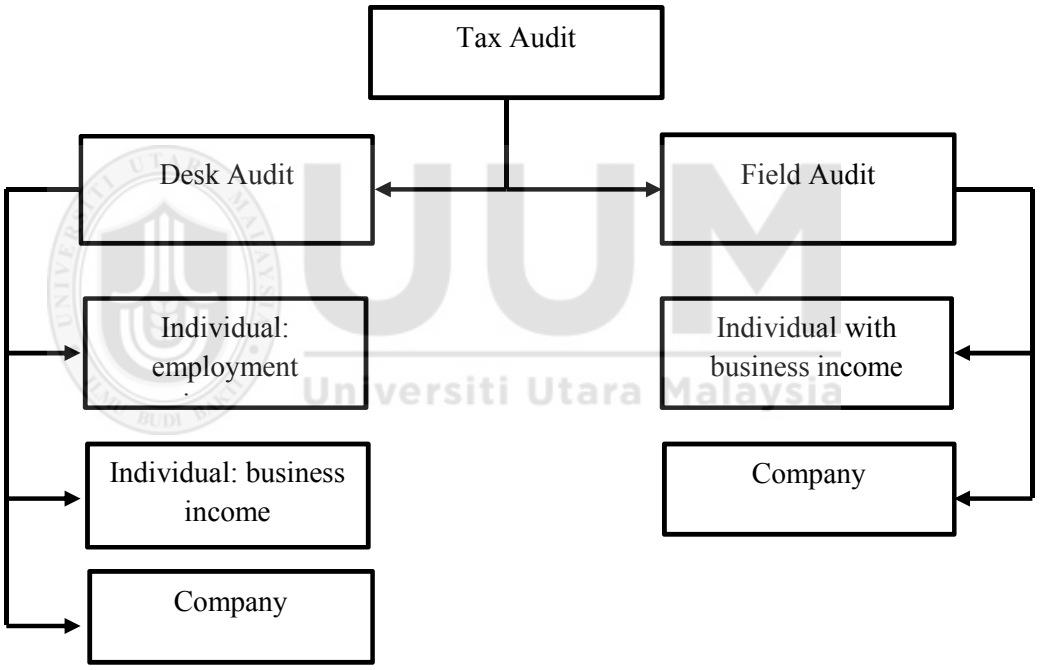

Figure 2.1
Tax audit classification in Inland Revenue Board of Malaysia

In general, a tax audit (desk or field) covers a period of one to three years of assessment depending on the audit focus and risk areas. However, the years of assessment can be extended beyond three years if a tax issue is related years beyond the coverage of three years of assessment.

2.7 Tax Audit Objectives

The main objective of tax audit is to encourage voluntary compliance with the tax laws and regulations (LHDNM, 2009). Tax audit is necessary to support the success and provide check and balance for the Self-Assessment System. Tax audit activities provide avenue to educate and create awareness of taxpayers towards their rights and responsibilities under the provisions of the ITA.

2.8 Tax Audit Processes

Figure 2.2 shows the main processes in tax audit. The main processes are similar for both desk audit and field audit; however, the executions of the processes are slightly different. This processes are as explained in the Tax Audit Framework (LHDNM, 2009).

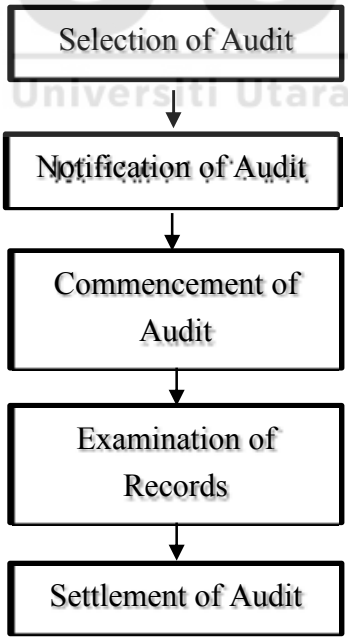

Figure 2.2
The Tax Audit Process

i- Selection of audit

The audit processes begin with selection of taxpayers to be audited. The IRBM has developed a computerized system which is able to perform risk analysis and identify taxpayers who are in the category of high-risk non-compliance. Some parameters can be changed in the computer system, for example gross margin level to tailor the tax risk analysis to the current risk-tolerance requirement. The IRBM (from time to time) adds some other selection criteria such as information from third party, selection based on location, and selection based on industry, and so on.

ii- Notification of audit

Once an audit case was selected, the next process will be to notify the taxpayer of the impending audit through a letter of notification of audit. The standard period between the date of notification of audit and the field audit visit is 14 days. This period can be shortened if the taxpayer agreed. It is a normal practice by IRBM to follow-up a letter confirming the field audit visit by a phone call. The IRBM also allows deferment of field audit visit at the request of the taxpayer on the ground of unavoidable circumstances. The field audit notification letter will also indicate a list of documents a taxpayer must made available for inspection by the IRBM auditors during the field audit visit, the years of assessment to be audited, the name of audit officers, and the time frame for the audit.

iii- Commencement of Audit

The field audit normally begins with an interview with the taxpayer with the purpose of explaining the purpose of the audit visit, and to obtain an overview of the taxpayer's business activity. During the first interview, the taxpayer is also asked to

explain his business activities, accounting and record keeping system. Other persons who are responsible for the handling of taxpayer's business records will also be interviewed.

iv- Examination of Records

The audit officers will examine all business documents and records to ascertain that the correct amount of taxable income has been reported. In certain circumstances, for example in the case of incomplete records for sole proprietor and partnership, non-business records might be examined. Some of the typical records to be examined in this case are statement of personal bank accounts, records relating to the purchase of properties, and records relating to the taxpayer's personal expenses. In addition to the examination of all business records, the field audit officer in certain cases may also inspect stock and verify business equipment if necessary.

The audit officer is not allowed to search for or take possession of records and documents. Examination of records and documents will only be carried out at the taxpayer's business premises. However, if it is deemed necessary, the audit officer should be allowed to make copies of relevant documents. Sometime there will be circumstances where the work place provided by taxpayer to the audit officers to carry out audit is not suitable. In that case with the consent of the taxpayer, the audit officer may obtain records for examination at the IRBM's office. Any records and documents taken back will be listed and the taxpayer may check the documents and records and make a copy of the list. If this happened, the documents and records will be returned to the taxpayer once the examination is done.

It is a responsibility of the taxpayer to ensure that all business records in electronic forms, or tapes, or other similar medium must be available in hard copy. Typically, the examination of records and documents on-site takes between 2 to 3 days. This time frame can be extended in the case of large and complex business transactions, less cooperative taxpayer, or unavailability of ready documents that hinder the smooth progress of the audit.

v- Settlement of Audit

Audit report will be prepared by a case owner (audit officer) after concluding the audit work, for the approval of the Branch Audit Manager. The taxpayer will be notified of the audit finding and must respond within the stipulated period, usually 14 days. If there is a tax adjustment, a taxpayer can be called to discuss the proposed tax adjustment at IRBM's office. The taxpayer can also request for meeting with IRBM. The case owner (the auditor) will be accompanied by one senior audit officer during the discussion. Typically, the meeting will discuss the audit issues raised, the reasons and rationale for raising the audit issues, and the amount of proposed tax adjustments and penalty (if any) and the years of assessment involved. If no objection is made within 14 days from the date of notification of proposed tax adjustments, the taxpayer shall be deemed to have agreed to the proposed tax adjustments or where an objection is found to have no basis in accordance with the provisions of the ITA, the taxpayer will be informed accordingly. Additional assessment (or reduce assessment) or notification of non-chargeability will be issued to the taxpayer accordingly. The taxpayer will also be notified, if there is no adjustment is necessary, citing that the audit has been finalized without any adjustment.

In general, once a field audit has been started, it must be concluded within 3 months from the commencement of the audit. However, if the audit finalization took longer period, the taxpayer will be updated. Once an audit is concluded, there is no audit on the same taxpayer on the same audit issues in the audited year of assessments. In a rare case, an audit case can be reopened in the same year of assessment, for different audit issues.

2.9 Tax Auditors and Work Norms

Every tax auditor is required to conclude or settle certain number of audit files and certain number of audit cases in a year, which is called work norms for an Executive Officer (assessment) (EO). Table 2.1 shows the work norms for auditor working in both field audit and desk audit for company taxpayers and individual taxpayers with business income. The number of files means the number of taxpayers, while the number of cases means the number of years of assessment. One file consists of several years of assessment. It has been a practice of IRBM for very long time that EO does not do desk audit on individual with employment income. The desk audit work on individual taxpayer with employment income is conducted by lower ranking employees usually an Assistant Executive Officer (assessment) or Tax Assistant.

Table 2.1
The annual work norms for Executive Officer in the Audit Unit in IRBM

	FIELD AUDIT		**DESK AUDIT**	
	Number of Cases	Number of Files	Number of Cases	Number of Files
Company Taxpayer	22	11	500	300
Individual taxpayers with Business income	32	16	1200	600

2.10 Chapter Summary

This chapter contains a description of selected issues with regards to IRBM. The issues selected are those with close relation to the subject under research which is the study of determinant of productivity of field tax auditor. The main function of IRBM is to administer direct tax in Malaysia. It has autonomous power in human resource and finance. The administration of direct tax includes four main components namely identification and registration of taxpayers, the administration of tax returns, the administration of collection, and finally the enforcement administration to ensure all the three earlier mentioned functions are administered efficiently.

A large portion of the total workforce of IRBM is from employees doing taxation function. One of the key taxation functions is the audit works which are conducted mainly by employees at the level of Executive Officer (assessment) (EO). The EO has a special recruitment method and every new EO had to undergo special training as well as need to pass several compulsory examinations. The EO will be deployed to conduct audit on certain type of taxpayers depending on his/her skill level in the judgement of a Branch Director.

CHAPTER THREE

LITERATURE REVIEW

3.1 Introduction

This chapter contains a brief introduction of theoretical assumption of behaviour, the theoretical assumptions on human capital, and the concept of productivity. A review of the literatures related to the factors affecting the productivity of a tax auditor and productivity in general are also discussed in this chapter.

3.2 Theoretical Assumptions on Behaviour

Certain level and types of skills, knowledges and attitude are expected by employers from employee to remain relevant and effective at works (Kantane et al., 2015). The importance of the above three elements were studied by Siriwardane, Hu, and Low (2014) in the case of auditors in Singapore and the study found that auditor's possession of certain relevant skill, knowledge, and attitude are significant to be a successful auditor. The literature reviews relating to skills and knowledge are further presented in section 3.3 onwards. This section deals with the attitude element which is closely related to the well-explored theories of individual behaviour. According to Ajzen (2011) job performance by employees are influenced by their behaviours and by factors in the work environment that facilitate or interfere with productivity. Behaviour at work is closely connected with effort at work, and job satisfaction. Job satisfaction and motivation that drives effort at work are presented later in this chapter. The rest of this section will focus on the theories of individual behaviour.

Individual behaviour is a well-researched subject. Two major behaviour theories are presented to provide further insight into the individual behaviour namely the health belief model and the theory of planned behaviour.

3.2.1 The Health Belief Model

The Health Belief Model (HBM) was originally designed and developed within healthcare context (Morris, Marzano, Dandy, & O'Brien, 2012), but its application is possible in other areas of behaviour such as recycling (Lindsay & Strathman, 1997), participation in parenting programme (Salari & Filus, 2016), and health communication (Jones et al., 2015). Summaries of the model are available in various studies such as Morris, et al. (2012) and Taylor et al. (2007).

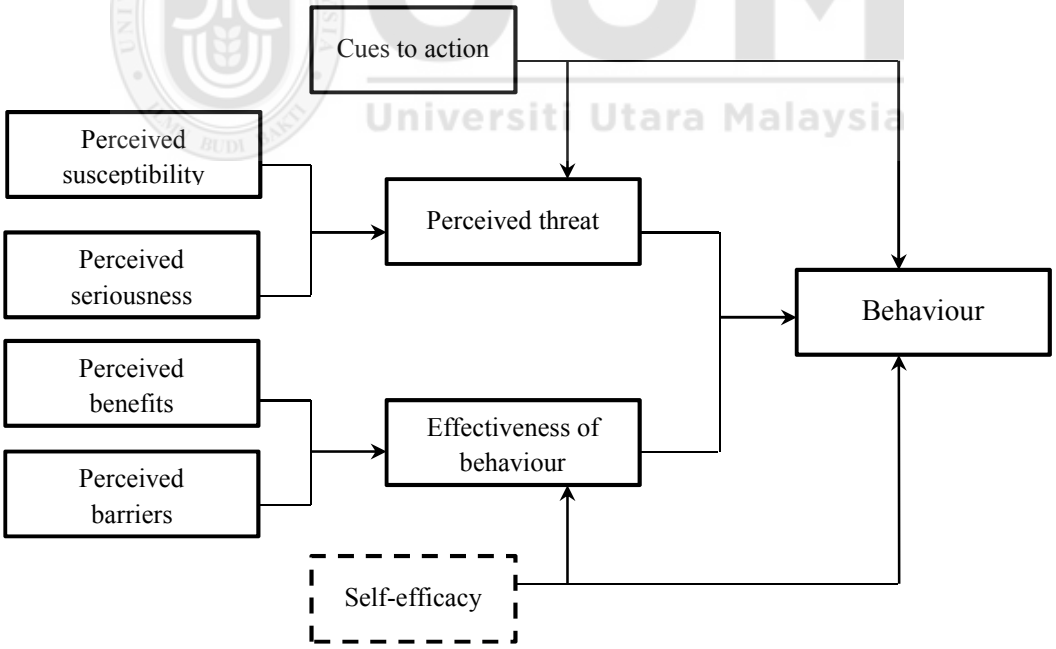

Figure 3.1
The Health Belief Model
Source: Morris, et al. (2012)

The basic premise of the HBM is that the likelihood an individual behaves in certain ways is influenced by the individual's subjective judgement and weighting of the costs and benefits of taking the actions. Figure 3.1 summarizes the essence of the HBM which states that individual behaviour is mainly driven by threats to an individual's well-being as well as effectiveness or outcome of certain actions by an individual. According to Morris, et al. (2012), Bandura (1997) added self-efficacy to complements the beliefs about effectiveness of behaviour. It indicates individual perceived capacity to adopt certain behaviour. Perceived threats are supplemented by cue to action which causes an individual to take actual action. Cue to action could be from internal driver such as in health context a symptom of ill health, and external driver such as information on health from various sources. Perceived threats contain two elements namely the beliefs on individual vulnerability or susceptibility to the threats and the beliefs on the seriousness of consequences of a particular threat. Perceived benefits mitigate the perceived threats whereas perceived barriers or negative outcomes of certain actions might result in individual being reluctant to adopt certain actions.

The HBM is criticized for its failure to recognize that in certain cases an individual is locked into certain behaviour patterns (with no or limited ability to choose) through institutional factors that beyond the individual control. The HBM also put less attention to social norms and expectations that govern individual choice and routine nature of human behaviour (Morris, et al., 2012). From the viewpoint of field tax auditors in IRBM, the HBM seemed relevant and applicable. Assuming the behaviour in question is the auditor's effort in their audit works. One can select whether to work hard or to maintain the minimum work standard required to stay

safely in the current job. An auditor can evaluate various information under him for example the benefits and cost he gets from working hard or working minimum. Possibly, for an auditor who is motivated or satisfied in his job, he would work hard. Whereas for an auditor who are not motivated or is not satisfied with his job he might adopt certain behaviour after mitigating the perceived threats of his action. If the threats are huge as a result of unproductive at work, he might work hard anyway even if he is not motivated or satisfied with his job.

3.2.2 The Theory of Planned Behaviour

Compared to the HBM, the theory of planned behaviour (TPB) has attracted more attention from researchers. This theory has evolved from the theory of reasoned action (Ajzen & Fishbein, 1980). TPB is a well-researched model and has successfully predicted behaviour under a variety of settings (Pavlou & Fygenson, 2006). TPB is claimed to be as the most influential theories in explaining and predicting human behaviour (Ajzen, 1991; Sheppard, Hartwick, & Warshaw, 1988; Yaghoubi & Bahmani, 2010) in a wide range of behaviours. Some of the researches include the acceptance of telemedicine technology by physicians (Chau & Hu, 2002), virtual banking (Liao, Shao, Wang, & Chen, 1999; Yaghoubi & Bahmani, 2010); computer resource centre (S. Taylor & Todd, 1995b); and information technology adoption (Gentry & Calantone, 2002; Venkatesh, Morris, & Ackerman, 2000); as well as acceptance of electronic brokerage services (Bhattacherjee, 2000).

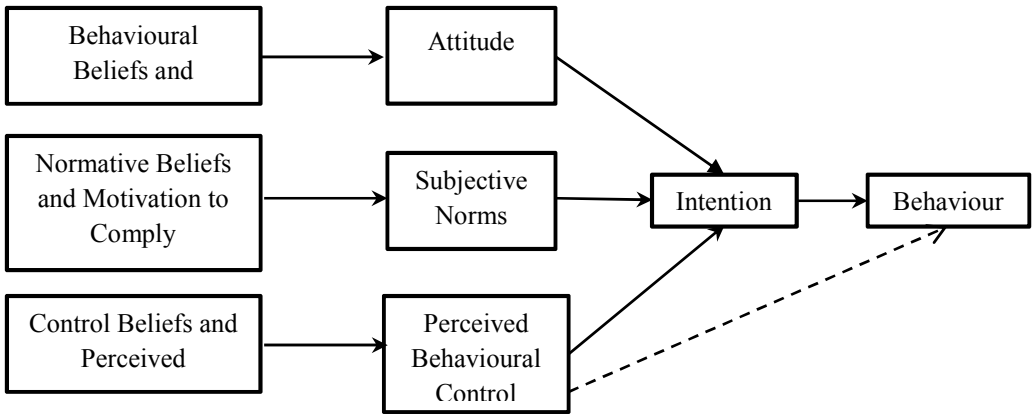

Figure 3.2
Theory of Planned Behavior
Source: Mathieson, K. (1991). Predicting User Intentions: Comparing the Technology Acceptance Model with the Theory of Planned Behaviour. Information Systems Research, 2(3), 173-191.

TPB is an extension of TRA with the introduction of Perceived Behavioural Control (PBC) perception. This is a set of control beliefs and their perceived power in order to facilitate or inhibit the performance of behaviour. The TPB framework is as in Figure 3.2, which indicates that individual behaviour is an immediate effect of a behavioural intention, where behavioural intention is a function of three main variables *i.e.* individual attitude towards behaviour, subjective norms and perceived behavioural control. Attitude is a person's overall evaluation of performing the behaviour, whereas subjective norm is a person's perception of the expectation of important others about the specific behaviour (Pavlou & Fygenson, 2006). Perceived behavioural control refers to the individual's perception whether a performance of certain behaviour is easy or difficult. In overall, the TPB is aiming to predict deliberative and planned behaviour. The integration of PBC as an addition to the TRA model is due to the fact that individuals do not have completed voluntary control over their behaviour, *i.e.* could be due to lack of skills or resources and limit in the action (Ajzen, 1991).

Even though TPB is believed to be the most influential theories in explaining and predicting human behaviour, yet this theory has some limitations. In principle this theory is applicable to one level of specificity, where TPB unable to incorporate two related behaviours in the model simultaneously, for instance, in understanding a connection of getting information and product purchasing intention or behaviour as studied by Pavlou and Fygenson (2006). However, in the last few years, this limitation is taking care as relationship between two behaviours is seemed to be important and yet little studies are carried out. Undoubtedly, TPB could aggregate beliefs in creating measures of attitude, subjective norm and PBC (Ajzen & Fishbein, 1980). Unfortunately, this aggregation is criticized for unable to identify a specific construct that contribute to the behaviour as well as failed to explain the biases it could create (Karahanna & Straub, 1999; S. Taylor & Todd, 1995a, 1995b). This aspect is also stressed in a study by Truong (2009) who found that little is known on what non-motivational factors affect the intention to use online video and television services and hence, it concluded that TPB is inconclusive in predicting and explaining behaviour.

A hypothetical scenario can be created to evaluate the relevance of the TPB in the study of productivity of field tax auditors. Let say the IRBM management would like to have an outcome of high productivity field tax auditors. Let assume that high productivity can be expected if the field tax auditor has the right skill and knowledge for the task and is working diligently on the assigned audit tasks. Based on the TPB, the right behavioural intention (willing to do) and thus the behaviour goal can be achieved if the auditor has a positive attitude towards the goal (as set by the IRBM management), the auditor believes that other important people in IRBM think that the

auditor will do the desired task (subjective norms), and has belief that behaving as desired by the IRBM is easy to do (behavioural control).

3.3 Theoretical Assumptions on Human Capital

The review of the relevant productivity literatures indicates that the concentration of theory is more on the importance of audit coverage (the probability of audit) rather than answering another important issue that is "what makes tax auditor more productive?". A highly productive tax auditor enables the tax authority to enhance the audit coverage with the minimum possible deployment of human resources. The emergence of studies focusing on audit coverage started with the pioneering theoretical work of Allingham and Sandmo (1972) and progressed with various approaches in empirical studies. One recent study by Alm and McKee (2006) reinforced the significance of audit coverage and audit efficiency in deterring tax non-compliance. Their study shows that compliance increases when taxpayers had some information that they have a higher potential of being audited. However, to the best of the researcher knowledge, a specific study on the determinants of tax auditor's productivity is still less explored. Thus, this research relies on literatures in relation to workers' productivity in general as the foundation of the research.

The basic theory of the determinants of individual productive capacity and productivity has been outlined by Becker (1962). He argued that investments in human capital affect a wide range of economic variables that include earnings and employment. Becker did not list the factors that constitutes as what he called human capital. However, he defines investment in human capital as "*activities that influence future real income through the embedding of resources in people"* and any activities

that "*improve the physical and mental abilities of people and thereby raise real income prospects"* (Becker, 1962, p. 9) can be considered as an investment in human capital. Nonetheless activities in the above category affect earnings differently. According to Sloman (1994), in an ideal competitive labour and product markets, a profit-maximizing firm is in the equilibrium when the marginal revenue of products (MRP) equal wages (W) as in Neo-Classical Marginal Productivity Theory. Given that investment in human capital positively correlates with wages, it can be said that investment human capital is also positively correlates with marginal products.

Becker (1962) mentioned and elaborated numerous types of investment in human capital such as the following:

i. Formal education
ii. On and off the job training

If one expands the human capital definition by Becker (1962), other variables such as experience can also be included because the length of someone doing specific tasks can enhance his/her ability in performing that tasks and thereby raise his/her real income prospects.

All the above variables affect workers' knowledge, competency and skill. These variables will be further explored in the following section.

It is noted that the work of Becker (1962) is rather old, however the factors he had mentioned such as worker's knowledge, competency and skill, continued to be quoted in recent publications such as in the Malaysia Productivity Report 2015/2016. Becker's work provides an excellent basis for empirical studies on the determinants of individual productivity.

This study attempts to explore the productivity of tax auditor at individual level. However, the review of the literatures indicates that most empirical studies on productivity are at the macro (firm or industrial) perspective. Therefore, this research relies on the assumption that the macro productivity is the sum of individual productivity. In other words, the macro review would also provide insights on the factors that influence individual's productivity.

The closest study related to factors that influence the productivity of tax auditor is the study by Greenfield (1982). Greenfield (1982) analysed the productivity of sales tax auditors from various states in the USA in year 1969 and 1976 (in aggregate form) and regressed it against three main explanatory variables namely the number of tax auditors, the level of salary, and sales tax rates. The dependent variable is the dollar amount of audit recovery because of the audit programs in the respective states. Greenfield (1982) argued that higher salary level could attract more skilful auditors and this variable has the significant influence on the level of sales tax auditors' competency in the respective states. The results indicate that audit recovery efficiency of auditors is positively correlated with the number of auditors. For example, increasing the number of auditors lead to an increase in audit recovery efficiency. Similar effect was also observed by increasing the salary of auditors. Greenfield's results suggested that audit productivity is higher in the states where salary is higher. Greenfield's work is excellent, but it has provided limited knowledge on the true determinants of auditors' productivity.

Syverson (2011) surveyed various empirical works in relation to factors that affect productivity variation across businesses. The factors had divided into two main

categories. The first consists of internal factors that directly impact the productivity at micro and firm level, and secondly, the external factors that a firm has less control over. The latter specifically refers to the external environment within which a firm is operating. The relevant internal factors as mentioned by Syverson (2011) include the effect of managerial practice/talent, the quality of labour and capital input, and the effect of "learning-by-doing". As mentioned in the study, a manager is a conductor of an input orchestra which coordinates the application of all inputs (including labour, capital, and intermediate inputs). The review of the literatures by Syverson (2011) suggests that firms with higher quality management practice can achieve higher productivity and vice-versa. A similar effect of the quality of labour on a firm's productivity was observed by Syverson (2011). The quality of labour is influenced by many factors such as education, training, overall experience, the length of service in the organization, as well as demographic factors such as gender and age. The positive effect of experience on productivity was reinforced by Syverson (2011) through a "learning-by-doing" process where experience is accumulated over time on the same task.

External factors refer to the operating environment in which a firm operates. These factors have impact on firms' productivity but unfortunately firms have little or no control over the factors. Two of the factors as described by Syverson (2011) are the spill-over effects of productivity and the effects of competition. Both factors have a very similar influence on a firm's productivity. If a firm is operating geographically within the areas of industries with high productivity, that firm might also have high productivity because of "peer effect". A firm might do its best to raise the productivity level to keep up with the industries as well as to remain competitive.

The factors mentioned by Syverson (2011) are the summary of many scholars' works. There are more specific literature reviews in the following paragraph.

Several newer researches emerged in the last few years in support of the human capital theory by Becker. Chang, Wang and Liu (2016) investigated the effect of human capital on the productivity of plant in several cities in Taiwan, by using the ratio of higher educated (university or above) employees in each city as the external human capital index for plant. They found that higher ratio of higher-educated employees' leads to higher productivity of plant in a given city. Additionally, they discovered that the positive impact of an increase in human capital index is even higher in high-techs plants and plants that located in cities with science parks. Similar positive association between human capital and productivity is reported by Benos and Karagiannis (2016) in the case of Greece. In their case, the levels of education such as primary education, secondary and tertiary education were used as indicator of human capital. Their findings show a strong positive association between upper secondary and tertiary education with labour productivity. It was also reported that lower labour productivity is attributed to primary education, while lower secondary did not exhibit any association with labour productivity.

3.4 The Concept of Productivity

The relevant concept in this study is productivity. The meaning of productivity is often misunderstood due to some reasons. One of the reasons is due to the existence of other closely related terms and concepts such as profitability, performance, efficiency and effectiveness (Tangen, 2002). Nonetheless, it is generally accepted that the term "productivity" refers to input-output relationship in production, i.e.,

how much output is generated from a given set of inputs (Syverson, 2011). Tangen (2002) added that productivity is strongly connected to creation of value.

According to OECD (2001), productivity can be measured in many ways. The most basic and practical productivity measure is the simple relationship between input and output as shown below:

$$Productivity = \frac{Output}{Input}$$

The measurement of output and input is not always clear. This measurement issue has been highlighted by Ball, Johnson, and Slattery (1986) in the case of hotel industry. Ball et al. (1986) pointed that measurements could take various dimensions based on specific purposes. Three dimensions have been suggested namely physical measure, financial measure, and a combination of the two. Additionally, a measure could be in from a usage of labour, energy, capital, raw material, and total factor. In their study on labour productivity in the hotel industry, Ball et al. (1986) identified twenty one (21) possible measurements of productivity. This suggests that measuring productivity is not always straight forward and one needs to relate the measurements with different aspect of performance and specific activities in an organization.

In the case of tax audit, OECD (2006) has outlined several measurements of tax audit performance. Broadly, the measurement can be either outcome based, or output based. Outcome-based measurement emphasizes on the impact of tax audit rather than the audit activity itself, for example the impact of tax audit on tax compliance. The impact is not always clear and immediate. The outcome measurement is beyond

the scope of this research and will be left out. The output-based measurement investigates the tax audit itself. The measurement can be: (i) Yield and productivity measurements, (ii) Time measurements (iii) Volume and coverage measurements, and (iv) Quality measurements. The possible measurements of tax audit performance as suggested by OECD (2006) is presented in Table 3.1 that follows:

The output-based measurements in Table 3.1 is intended for measurement at the macro level (i.e., at the level of a tax authority as a whole). It is also necessary to point that performance or productivity measurements are time bound, i.e., the measurements are taken for a specific interval such one month or one year (OECD, 2006).

Table 3.1
The measures of audit yield, productivity, and volume

	Measure	Definition
1.	Total assessed tax and penalties	The aggregate value of assessments resulting from all audit activities or by class/type of audit activity
2.	Total revenue collected in respect of assessed tax and penalties	The aggregate value of revenue collected within the fiscal year from that year's audit activities
3.	Average tax and penalty per case (i.e. taxpayer)	The total value of assessed tax and penalties divided by the number of completed audits (including non-productive audits) nothing that an audit may cover multiple years of taxes
4.	Number of completed audits, both productive and non-productive	The aggregate number of completed audits from all audit activities over a defined period. This number might be broken down into sub-categories (e.g. by class/type of audit, tax type)
5.	Average tax and penalty per unit cost	The total value of assessed tax and penalties divided by agreed unit cost measure (e.g., the cost of employing one audit official for a full year)

Table 3.1
The measures of audit yield, productivity, and volume (continue)

Measure	Definition
6. Relative size of understatements detected	The total value of adjustment made because of audit as a proportion of total assessed liability
7. No change/adjustment rate	The proportion of audits where no assessment results from the examination undertaken.

Source: *OECD (2006) Strengthening Tax Audit Capabilities: General Principles and Approaches. p.29*

The definition of productivity as a relation of input and output has been adopted in general in measuring productivity in Malaysia. It is indicated in the Appendix A.1 of the Malaysian Productivity Report 2015/2016 (MPC, 2016).

3.5 Training and Productivity

Training was mentioned by Syverson (2011) as one of the important factors affecting individual's productivity. This factor has been investigated by several other scholars such as Holzer (1988), Pells et al. (2004), Dearden et al. (2006), and Aghazadeh (2007). Holzer (1988) investigated the effect of various elements including experience, training, individual-specific and firm characteristics on individual wages and productivity using individual workers from firm throughout the US in 1980 and 1982 as the sample of the surveys. The individual workers in the sample consisted mostly young workers below the age of 30 (thus become the main point of Holzer's findings). Holzer (1988) was able to analyse the level of productivity and wages as well as their changes over time, due to the availability of data of same individual at different points of time. The measure of productivity was taken from the subjective productivity score rating of employers to their employees in the scale of 0 to 100.

The length of training was measured in hours which include formal and informal training provided by the management, supervisors, trained personnel and co-workers. A larger fraction of the training was informal. In general, the result indicates that training positively affects the productivity and wage growth. However, the results show no significant impact of training on the level of both productivity and wages. The results also show that formal training has larger impact on productivity growth compared to informal training. It was further indicated that both formal and informal training provided by management have more positive impact on productivity growth compared with the time spent with co-workers.

Pells et al. (2004) found three possible impacts of training on productivity i.e., the impact on individual, on firm productivity, as well as the impact on society. According to Pells et al. (2004), the impact of training on individual productivity is observed through an increase in salary. It is expected that an increase in industrial training could boost individual productivity in the range of from 5% to 20%. On the firm level, an increase in productivity is reflected through an increase in the firm's profitability. However, the evidence from their analyses is less clear and less conclusive. Limited evidence indicates that the impact of training on productivity at firm level is higher than the impact on individual. It is also possible that a highly productive worker can influence co-worker positively. This is what Pells et al. (2004) called as externalities of productivity (i.e., the impact of productivity increase on society).They also mentioned one important point where, individuals with lower educational achievement and economic status gained higher increase in productivity as a result of proper training.

Using a panel data of British industries for a period of 1983 to 1996, Dearden et al. (2006) analysed the impact of work-related training on productivity at industry level. The econometrics specification for the estimation stemmed from the basic Cobb-Douglas production function. Their results indicated that training has a significant effect (statistically and economically) on industrial productivity. It is interesting to note the impact of training on productivity and wages, because earlier Pells et al. (2004) mentioned that an increase in productivity is reflected in the increase on salary. Dearden et al. (2006) found that the effect of training on productivity is larger than the effect on wages. The correlation between training and productivity as well as training and wages was positive. It was found that a 10% increase in training would result in 6% increase in productivity as compared to 3% increase in wage.

Aghazadeh (2007) presented two case studies to illustrate the positive impact of training on productivity in service sector. The studies were on two US corporations namely Wegmans and ClientLogic. In the case of Wegmans, the productivity was measured through the number of items a cashier successfully processes per minute (IPM). The cashiers had to go through initial on-the-job training before starting actual work. Further training would be provided if the target IPM was not achieved. During the training the cashiers were exposed to techniques that enhance their IPMs. After the training the cashiers showed better IPMs. It can be suggested that cashiers who were trained with longer hours showed higher productivity. A similar finding was reported for the second case, ClientLogic. ClientLogic's service agents corresponded with customers mostly through telephone conversations. Thus, productivity is measured through the time taken to handle calls from customers. It was found that highly productive employees spent lesser time in handling calls.

Khan, Khan, and Khan (2011) studied the impact of four training elements on the organizational performance. The elements include training and development, on the job training, training design and training delivery style. They analysed secondary data comprising of literature review. Results show that training and development; on the job training; training design; and delivery style have a significant positive affect on organizational performance. In general, they found that the training elements affect employees' performance directly. However, the ultimate result is on the overall organization's performance where training could help the employees to perform on assigned tasks better. According to Gallarado (2009) employees need several types of competencies to improves their productivity at work. The competencies include Scientific Competency (know), Practical Competency (Know how), Personal Competency (Know being) and Social Competency (Know to share). These competencies can be acquired through learning, training and experience.

In addition, Gambin, Green, and Hogarth (2009) investigated the links between skills and productivity and suggest that a positive association between the two. Highly skilled people produce more high value goods and services in a more efficient way. However, they found difficulty in establishing a causal relationship between skills and productivity due to data issues and problem of endogeneity. Also, even where it is possible to establish a relationship between skills and productivity it is not always clear what skills result in an increase in productivity. In this sense, skills are often treated as a black box. The evidence in their study also suggests that productivity gains of skilled people are dependent upon the management capability, innovation and entrepreneurship. In the case of worker**,** these three elements are however more relevant at employer level rather than individual employee.

Kim and Polyhart (2014) on the other hand, studied the effect of staffing and training on firm productivity and profit growth using the data from 359 manufacturing, finance and service (non-finance) firms over 12 years period. The evidence suggests that internal training has a significant and positive impact on firm labour productivity which would finally be translated into firm growth. Specifically, internal training creates specific human capital resources that are more beneficial for the firm's profitability during the prerecession period. Differently, Sepúlveda (2010) examined the roles of formal trainings i.e. on-the-job (OJT) and off-the-job training (OFJT) on productivity and wage growth using data of manufacturing industries in the US. The results suggest that the impact is positive but decreasing for OJT on human capital accumulation, and therefore productivity. On the contrary, OFJT has no effects on industrial productivity or wages.

The result in Sepúlveda (2010) is supported by another recent study, this time on China case. Using a large panel data set of manufacturing firms in China with national representativeness, Liu and Lu (2016) found a statistically and economically significant effect of on-the-job training on productivity. The higher the training expenditure per capita, the higher the increase is in productivity. It was also reported that the findings are neutral i.e. is not sensitive to industrial capital intensity or firm ownership structure.

The literatures on training and productivity so far have provided a significant insight into the relationship between training and productivity of workers in industrial and service sector. The general conclusion from the studies suggests that all types of

training such as informal and formal training have positive influence on the productivity.

The ability of an employee to grasp and comprehend the training materials and contents would also possibly influence the actual productivity of the employee. Usually, this ability can be measured using certain test after the completion of a course. However, this issue has not been addressed in the reviewed researches. It is also unknown whether certain types of training of both formal and informal affect productivity at different rate. As an illustration, say employee A is trained formally with training type X and employee B is trained with formal training of type Y. In such cases like the above the literature is rather unclear in determining the productivity at different types of training.

In the IRBM, all Executive Officers (EO) are required to attend and pass the basic law and account training courses. Based on the general perceptions of the literatures it is expected that all tax auditors who have attended and passed all the compulsory basic law and account courses are expected to be more productive compared to tax auditors who have not. In addition, it can be safely assumed that having attended and passed the compulsory courses can be used as one of the criteria in selecting EO to be deployed in the field audit unit. When all officers are exposed to similar training and yet still producing different individual's result at work, it is best to look at other factors as well. For example, the score in the exam at the end of the training programme can be used as one of the determinants in individual auditor's productivity at audit work. Once the relationship between the test score and

productivity is known then, it can be can use as a guide to select potential tax auditors.

EO also could attend many other optional courses throughout their services. Each field tax auditors may have to attend different types of courses, such as time management, interviewing techniques and computer assisted-audit. It is not known in the literature whether the specific courses attended by auditors have any influence on the productivity among field tax auditors. If some courses have some positive effect on auditors' productivity, then they can also be used as guide in selecting field tax auditors to be deployed in the field audit team.

3.6 Work Experience and Productivity

Another important factor contributing to a higher productivity of workers as mentioned by Becker (1962) is experience or the length of one's service in a particular job. Medoff and Abraham (1980), p. 703 cited that the general expectation according to Becker's (1964) human capital theory is that a more experience worker is paid higher because he/she is more productive. The impact of experience on productivity has been studied by Medoff and Abraham (1980); Maranto and Rodgers (1984); Dunston (1985); Papay and Kraft (2015); and Holzer (1990) among others. Interestingly, Medoff and Abraham (1980) found a counter intuitive association between experience and productivity. In their study, samples were taken from two major US corporations which consist of employees at managerial and professional level. Salary was traditionally used as a measure of productivity but Medoff and Abraham (1980) did not use it because of the possible disturbance of the seniority

system in pay determination in the two corporations. Instead, the employees' performance appraisal results were taken as measure of productivity with the assumption that the higher the productivity the better the employees standing in the performance appraisal by their supervisors. There are six levels of performance ranging from unacceptable to excellent. Medoff and Abraham (1980) mentioned some reasons on why performance or productivity remained stagnant despite employees accumulating experience over the years. One of the reasons is the obsolescence of some previously learned skills over time. This is particularly true especially in jobs that involved rapid technological change and progress. It was also mentioned that a sense of complacence among employees might set in after certain period, and this would adversely affect their productivity. In addition, more experience workers are relatively older, and this group might have less motivation.

Maranto and Rodgers (1984) investigated the impact of experience on productivity using the data on wage claim investigation from the US's Midwestern State Department of Labour. In their study productivity is measured using a fraction of back wages recovered by an investigator. The primary task of the investigator is the recovery of unpaid wages that employers allegedly owe to employees. The investigator uses pure skill of persuasion and negotiation to recover the back wages. Therefore, it is practical to assume that a more experience investigator would be able to recover higher amount of back wages. The main explanatory variable is the investigator's tenure on the job and has also included some control variables such as the number of years of schooling completed, and the investigator's gender. Using Ordinary Least Square and Generalised Least Square methods, Maranto and Rodgers (1984) found some evidences to support the human capital contention of

improvement in productivity as a result of increases in experience. However, a more rapid improvement in investigator's productivity only occurs during the first six years on the job. There are several elements that could have significant impact in their analyses and results, such as non-availability of official on the job training for investigator, non-existent of promotion for investigator, non-existence of supervisor's monitoring on investigator, task difficulty, and the unknown scale of competency rate in the job. These factors, among others, lead them to conclude that the result of their study cannot generalise in other field of occupation.

Similar result was also reported by Dunson (1985) but his study did not investigate the influence of employees' experience on their work performance over a time period. Dunson tested the relationship between earnings and various explanatory variables using a standard semi log earning model:

$$\ln(y) = XB + e$$

y represents annual salary (as a proxy to productivity), X represents various personal characteristics (including government experience, government experience squared, and other control variables such as education and age), B is a vector of parameters to be estimated and the error term e. The data for the test was sourced from the US Department of Defence (DOD) Civilian Master and Transactions File. This data contains personnel records of all civilian employees in the DOD, nonetheless only data of white males in either professional or administrative jobs were used for the analysis. In this case annual salary can be a proxy of employees' performance because pay increase is based on the result of annual performance appraisal. The result of Dunson's study indicates that highly experienced employees earn more than their less experience peers.

In a more recent study, Papay and Kraft (2015) took advantage of the extensive database of matching teachers-students' examination scores of southern United States that involved from the year 2000-01 to 2008-09. Using the amount of time, a teacher has spent teaching as predictor and his/her respective student's examinations score as a measure of his/her productivity, Papay and Kraft (2015) estimated various models of panel regression. Their key finding indicated that teachers' productivity improved faster during their first several years in teaching and continued to over time at lesser scale. The latter, however, was not statistically significant which also suggested that experience does not continuously contribute to a more productive teacher after the first several years of service.

Earlier in this review, the study of Holzer (1990) was mentioned which also includes previous experience and tenure as one of the determinants of individual productivity. A stronger positive impact of previous experience on current productivity was found particularly for experience that has some use to the current job. The positive effect of job tenure is observed for both the current productivity level as well as productivity growth.

In summary, the influence of experience on productivity is not as clear as contended by Becker (1962). The key findings indicate that tenure in the job or experience does contribute to an increase in employee's productivity, however the increase varies throughout the service of the individual employee. It seemed that individual employee's productivity increases rapidly in the early part of his/her service and continue to increase in smaller rate after certain period. In certain situation Medoff and Abraham (1980) also suggested that work experience does not necessarily

contribute to higher productivity. The above finding supports that the relationship between work experience and productivity cannot be generalised. Every case needs to be investigated on its own, which suggests the same test for individual field tax auditors in the IRBM. Such test would help the IRBM to answer one important question that is "Can the IRBM rely on its highly experience field tax auditors to achieve higher audit productivity?".

Another type of work experience which was not addressed in the reviewed literature is the impact of prior work experience to the individual productivity. It is one of the practices in the IRBM that an officer is assigned to other tasks before posting him/her to the field audit work. For example, an officer is assigned to desk audit works for a certain period before being posted to the field audit work. In some cases, the selection of field audit officers to be in company field audit unit is based on whether that officer has been in the individual business taxpayer field audit unit for a certain period. It is important to test whether the above practice has a merit and can be used as a guide in selection of officers to be in the field audit section or in the field audit team for more complicated audit cases.

3.7 Demographic Characteristic – Age and Productivity

The impact of age on individual productivity has been investigated by Vandenberghe and Waltenberg (2010), Dostie (2006), Roger and Wasmer (2009), Dearden, et al. (2006), and Turner and Mairesse (2003). According to Vandenberghe and Waltenberg (2010), the average age of Belgian workers rose by almost three years between 1998 and 2006. It was expected that productivity decreases as worker age increases due to certain reasons such as deterioration in health. Vandenberghe and

Waltenberg (2010) found that the overall productivity of a firm in Belgium decreased as the percentage of older workers increased in the firm. Statistically, an increase of 10% in the share of older workers of age 50 to 60 years old depresses the added value of a firm by 2% to 4%.

The above finding is consistent with Dostie's (2006) finding in the case of Canada. Dostie used the Canadian data of Workplace and Employee Survey in year 1999 until 2003 to analyse the relationship between productivity and age and found a concave relationship between the two. The most productive age group according to Dostie in the case of Canada is between 35 to 55 years old. The concave relation between productivity and age is a matter of concern because wages have the tendency to increase over the period of employment term of a person (Skirbekk, 2003). Based on Skirbekk's (2003) survey of the literature, individual cognitive ability varies as age increases. This variation affects the individual job performance particularly around the age of 50 where individual job performance starts to deteriorate. According to Skirbekk (2003), older workforce generally produces lower productivity in a job requiring problem solving skill, learning and speed. However, they are relatively more productive where experience and verbal abilities are required in the performance of a task.

The effect of age on productivity was also investigated by Roger and Wasmer (2009) using the French manufacturing data in the year 2008. The data covered manufacturing, services and trade sectors. They investigated the age effect by segregating the data according to the level of skills (i.e., high-skill and low-skill workers) and sectors (i.e., manufacturing, service and trade). The results were not

consistent, showing different effect of age across the two main skill groups. Their key findings indicated that for low-skilled labour, the productivity found to be the lowest among the oldest workers, and for high-skilled labour, the mean productivity across different age groups is quite consistent with higher mean productivity for workers above 50 years old. In the trade sector, the oldest high-skilled employees found to be the most productive. Roger and Wasmer (2009) also investigate the connection between productivity and wages and found that the ratio is not stable across groups and ages. The productivity-wage ratio is the highest among young workers in the manufacturing sector. In the service and trade sector, the middle-aged employees demonstrated the highest productivity-wage ratio. The above review indicates that age asserts some influence on individual productivity, though the effect does not consistent across job functions.

Sometime researchers also include the age factor as a control variable along with main variables in their studies. Such studies include Dearden, et al. (2006) which was mentioned earlier in this review. Dearden, et al. (2006) found that that younger workers are significantly less productive than older workers (i.e. age between 16-24 versus age between 35-44). This finding is consistent with the finding of Roger and Wasmer (2009) for the impact of age on workers' productivity in trade sector.

Turner and Mairesse (2003) studied the impact of individual characteristics including age on the productivity of French scientists in public research in the year 1980 to 1997. The productivity is measured by the number of articles produced and the quality of publication measured through the number of citation as well as the journal impact factor. Their results showed that productivity initially increases but then

decreases over the period as the scientists turned older. Specifically, the most productive scientists in term of number of papers published were those in the age of 46 to 50. The research productivity declined after the age of 51. Similar trend was also observed in term of quality of publication. Scientists in the age of 51 to 61 received less citation compared to the younger scientists.

In the study of Lovász and Rigó (2013), becoming older seemed to negatively affect productivity due to skill obsolescence in the long run. Adjustment is needed following a sudden change in skills needed in production and this affect older workers the most. In particular, the devaluation of skills affects highly educated older workers more severely.

The general conclusion with regards to an individual employee's productivity and age seemed to favour those employees fall between the ages of 30 to 50 as the most productive employees. It is however unclear whether this general conclusion can be used to generalise the situation in the case of the IRBM's field tax auditors. The nature and complexity of audit works evolve over the years due to changing tax laws and regulations. Since the introduction of the Income Tax Act, 1967 there has been no single year passed without changes in it. In addition, audit works become more complex because of enforced or voluntary changes in business practices parallel with changes in government regulations, standard accounting practices, financial innovations, as well as technological innovations among others. As an auditor's age increases, his/her ability to cope with the changes in his/her work environment might varies and possibly deteriorate. This is supported by the argument of Skirbekk (2003) which mentioned that individual cognitive abilities varies as age increases. It is

important to know whether age can be an important factor in deciding whether an auditor is potentially productive or vice versa.

3.8 Demographic Characteristic – Gender and Productivity

The connection between productivity and gender is well documented in the productivity literature. The World Bank (2012) in its report acknowledged the existence of productivity differences between male and female across economic spectrum throughout the world. Several causes for the differences were cited such as the inherent differences in the characteristics of female and male workers; the types of activities and jobs that women and men do; and differences in the returns to both worker and job characteristics[3]. Women spend more time on household and care works compared to men. Men in contrast spend more time on market works compared to women. The unique characteristics of men and women most probably lead both genders on potentially involve in different economic activities (in term of types and scale) that eventually lead to differences in productivity and income.

The fact of different productivity level between genders doing a same work or economic activity was supported in several studies. Turner and Mairesse (2003) in their study on French Physicists, found that women is less productive in the number of publications as well as quality of research. The quality of research refers to the number of citation a physicist had from his/her publication. The findings indicate that men publish more paper than women at almost 0.9 papers on average per year. The reasons for the difference in research productivity could be many. One of the reasons was elaborated by Leahey (2006). Leahey (2006) found that the difference in the

[3]World Bank (2012), page 202

extent of specialization depth in a particular field between men and women was one of the reasons leading to different research productivity. Men specialize more than women and therefore enable men to apply more specific knowledge in their research and increase productivity. Specializing enables one to master a literature in a subfield, and it makes subsequent research and publication in the related field easier.

Lower productivity of women compared to men is also observed in developed countries. Petersen, Snartland, and Milgrom (2006) reported that the productivity of women as compared to men in the US, Norway and Sweden engaging in similar blue-collar occupations is lower. This trend is observed in both piece-rate workers and time-rate workers for all ages of workers. It was also reported (for Sweden and Norway) that the productivity gap between men and women was generally the largest for the age group between 31 and 50 years old. The age between 31 and 50 is the period which a woman shoulders the highest family obligations, which was suggested as one of the reasons contributing to the lower productivity.

Recent study by Ali, Bowen, Deininger, and Duponchel (2016) on agriculture productivity in Uganda indicates a significant labour productivity gap between men and women. Productivity of women was reported to be on average 20-30% lesser than men, although women comprised about 50% of the agricultural labour force. Some evidence suggests that greater child care responsibility of women is the largest driver of the gap in productivity. Smaller drivers include differential uptake of cash crops, differential uptake and return to improved seeds and pesticides, and differential returns to male-owned assets.

Mueller, Gaudilliere, Kin, Menorca, and Girod (2016) found another disparity in productivity between men and women at higher level of intellectual quality. Mueller, et al. (2016) examined gender disparities in research productivity among academic surgeons in the US, as measured by the number of citations, publications, and h-indices, across six decades. Women representation as faculty members in the institutions has increased significantly over time to the level of 35.3% but the number of articles published are significantly fewer than men.

Although there were number of researches to support the argument that women have lower productivity compared to men in similar and different economic activities, it is premature to assume that those findings are valid in the case of field tax auditors in the IRBM. In IRBM all EO are given equal access to similar type, quality and amount of resources. For example, all officers (regardless of their gender) are provided with similar training. This is because the capability of men and women in conducting of field audit is expected to be the same. However, based on the finding of Peterson et al., the amount of family obligations at home for men and women might assert important influence on the productivity of the field tax audit officers of different gender. It is also important to note that field tax audit involves outside-office works, therefore women and men could produce different level of productivity with this unique setting. It is important to know which gender is more productive in the field tax audit as this would help in determination of appropriate ratio of men and women in the field tax audit team.

3.9 Demographic Characteristic – Marital Status and Productivity

It is the researcher's suspicion that there might be an impact of marital status on productivity. One of the reasons is because of the existence of productivity disparity between man and women due to their different nature of works (World Bank, 2012). Man is associated with works outside home while woman is traditionally associated with works at home. After marriage a woman is expected to be less productive for work outside home due to additional work needed to be done at home.

In the study of Korenman and Neumark (1990), they found some evidence to support that married men workers are more productive. There is very small difference in pay between married and single men, but married workers tend to be located in higher paying job grades. Married men workers are evaluated positively on their performance and as a result, they are having brighter prospect to be promoted.

According to Cornaglia and Feldman (2011) the impact of marriage on productivity is less clear in men in the case of male professional baseball player. However, recent study by Shtudiner (2015) shows a positive association between marital status and productivity of professional NBA players in the United States (US). The finding suggests that marriage increases men's productivity by allowing men to spend more time on specialization and education.

A different picture appears in the impact of marital status on productivity in Information Technology sector in India. In the study of Padmanabhan and Magesh (2016), single workers are found to be more productive (higher performance) than

married workers. They concluded that single employees perform better than married employees due to lesser commitment towards their family and other circumstances.

Krapf, Ursprung, and Zimmermann (2017) studied the effect of parenthood on the research productivity of academic economists. In general, they found no compelling evidence to suggest that having first child would unconditionally affect productivity. However, conditional difference-in-differences estimates suggest that parenthood negatively affects research productivity for unmarried women and positively for untenured men. Additionally, becoming a mother before 30 years of age appears to reduce research productivity, with mothers of two or more children suffer even a lesser productivity.

The above literatures on marital status and productivity have not shown consensus. This situation might be an indication that indeed the impact of marital status on productivity depends on each case. In this situation the previous finding cannot be used to generalize into other situations. Specific empirical study is required to answer specific case.

3.10 Religiosity and Productivity

It was acknowledged by researchers that study is lacking on the direct linking of religiosity, spirituality, commitment and personal values towards individual's performance at work (Osman-Gani et al., 2010). Some interesting findings on the relationship between religiosity and productivity were reported by Barro and McCleary (2003), Wiseman and Young (2014), and Osman-Gani, et al., (2010). Based on their reviews of the religiosity-productivity literature, Osman-Gani et al.,

(2010) argued that religiosity influences individual performance in an organization through its positive impacts on personal values.

In the presence of work commitment, a positive personal value can indeed enhance individual employee performance in an organization. Broadly, Barro and McCleary (2003) found that an increase in religious activity in the form of church attendance contributes to the reduction in the economic growth. This is probably due to diversion of resources in the sector's main output (the religious beliefs) that was held constant in the analysis. However, for a given church attendance, an increase in religious beliefs has some positive influence on economic growth. According to Barro and McCleary (2003), religion is part of culture which has significant influence on various personal traits such as honesty and willingness to work hard. It can be deduced that the quality of the religious beliefs has more significant positive effect on productivity and economic growth, rather than the quantity of the religious activity. The sample for their analysis consists of 59 countries all over the world which include countries that are predominantly Christian, Muslim and Buddha.

Wiseman and Young (2014) used the US state level data, in an attempt to correlate religiosity and productivity. More specifically two measures of religiosity have been analysed namely the belief (e.g., the frequency of prayer) and belonging (e.g., protestant affiliation). The measure for productivity consists of the level of entrepreneurial activities (both productive and unproductive). The finding indicated that both measures of religiosity negatively correlate with state's productive entrepreneurship score. Wiseman and Young (2014) noted that the plausible explanation for this result is probably due to the usage diversion of resources.

Religious obligations and activities require certain amount of resources that could otherwise be used for productive entrepreneurial activities. Their findings and justification are somehow similar to certain part of Barro and McCleary's (2003) result. In fact, a recent finding by Herzer and Strulik (2016) using panel data from developed countries suggest also support the negative association. It is said that in the long-run between church attendance and total factor productivity, there is a negative association. It was estimated that the total factor productivity increased by 18% as a result of declining religiosity for the period from year 1950 to 1990.

Based on the preceding reviews there are at least three factors that determine the direction of impact a religion and religiosity on individual productivity. Firstly, religion and religiosity level could influence personal values (e.g., concern for the poor, honesty and thriftiness) and work commitment. Secondly, allocation of resources into religious activities and meeting religious obligations lessen the resources for productive economic activities. Thirdly, the level of religiosity could affect the incentive to be productive. Wiseman and Young (2014) wrote: *"...if a religion makes the present value of activity in this world seem small relative to that of the eternal hereafter, then this may dampen an individual's incentives to undertake any type of entrepreneurial activity*" (p.3). The preceding analyses shed some insights into the possible effects of religiosity on individual's productivity at works. In the case of the IRBM, one could identify the religious belief of an individual tax auditor through self-declaration and observation of individual's religious practice. When a situation of almost homogenous religious belief[4] arises as in the case of the IRBM tax auditor the test of religious belief on productivity becomes difficult and

[4] Say for example 80 percent to 90 percent homogenous

bias. In the presence of the above situation, one area that could be explored is the quality a tax auditor's religious belief. Although the literature has provided possible effect of an individual quality of religious belief, there was no insight into how this quality of belief can be measured and examined in various settings. It will be examined in this research as one of the factors affecting an auditor's productivity. The findings should be able to help the IRBM's management to decide whether to provide more avenues for tax auditor to enhance their quality of religious belief.

3.11 Motivation and Productivity

Lai (2011) reviews the literature of motivation. She quoted one of the definitions of motivation as "the attribute that moves us to do or not to do something". In works, if one has no reasons or little reasons to do the work, naturally productivity must be low. An unmotivated or less motivated employee is likely to spend little effort in their works, and likely to produce low quality work and vice versa. Robescu and Iancu (2016) presented a hypothetical illustration of the relationship between motivation and performance level as in Figure 3.3.

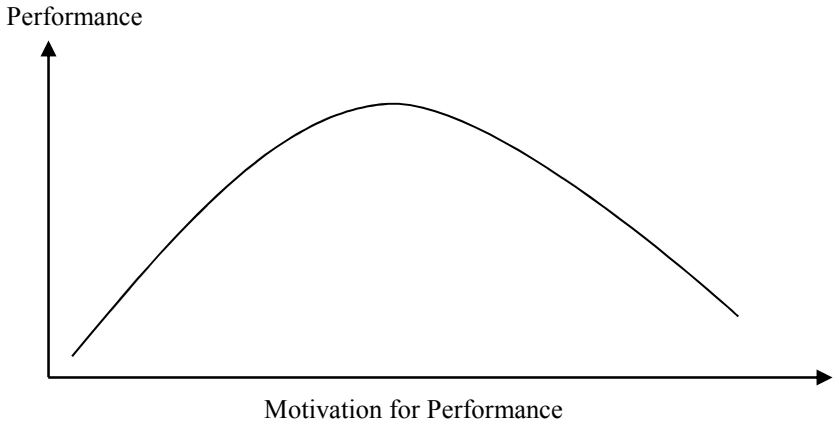

Figure 3.3
Motivation and performance
Source: Robescu & Iancu (2016)

Figure 3.3 above indicates that performance increases as motivation increases. However, Robescu and Iancu (2016) pointed that an increase in performance might not happen even if an employee is motivated if he has inadequate knowledge and skill for the task. In addition, the highest level of motivation does not result in the highest performance, especially when the task is difficult. An extremely high level of motivation leads to lower performance as compared to a moderate level. According to Robescu and Iancu, a high level of motivation reduces cognitive field and might make people afraid of failure and thus, leads to lower performance.

Nonetheless, it is quite challenging to support the above premise in practice as most empirical studies are focussing on what motivates employees rather than how differences in employees' motivation level lead to differing work performance and productivity. A study by Omollo (2015) in the case of commercial bank of Kenya indicated that motivation plays a major role in boosting the productivity of employees. Omollo approached the issue by looking from the negative side that is the demotivating factors such as excessive workloads (quantity and period), unclear career path, lack of appreciation, and slow promotion. All these factors affect motivation negatively which also impact productivity negatively. Similar finding was reported by Ibrahim and Brobbey (2015) in their study of micro finance companies in Ghana. Several factors affect motivation which in turn affects performance of employee such as leadership opportunities, recognition and employee appraisal, meeting employee expectations and socialization. The positive correlation between motivation and productivity is also reported in the study of teachers' performance in Pakistan by Shahzadi, Javed, Pirzada, Nasreen, and Khanam (2014). Their research shows that teachers in the samples were dissatisfied with the training provided to

them which consequently demotivate teachers and negatively affect their performance.

Horodnic and Zaiţ (2015), in their research using questionnaire survey among Romanian academics of economics and business administration, found that intrinsic motivation is positively correlated with research productivity, in contrast with negative correlation with extrinsic motivation. Evidence from the research shows that the productive scientists in term of research products; are those who have strong interest in their work. In contrast scientists who are extrinsically motivated will substitute their efforts toward activities that are more financially rewarding.

Alrahlah (2016) studied the effect of motivation factors on research productivity among dental faculty members in the Kingdom of Saudi Arabia. The motivated faculty members are consisting of those who believe that more research productivity means enhancing their scope of knowledge as well as improving their status within the global academic community.

3.12 Job Satisfaction and Productivity

In a recent study by Bockerman and Ilmakunnas (2010) using a firm level Finland data, they found that job satisfaction is also one of the influencing factors for workers' productivity. In general job satisfaction affects productivity positively. An increase in job satisfaction by one within-establishment standard deviation would increase productivity by 6% (Bockerman & Ilmakunnas, 2010). Nevertheless, they argued that the economic effect of this finding is rather small because job satisfactions in the survey were already on the high side of the Likert-scale of one to

six, thus making it difficult to improve job satisfaction further. In their work, Bockerman and Ilmakunnas (2010) used three measures of productivity that consists of the value added per hour worked, total factor productivity, and turnover per employee. Job satisfaction was measured on Likert-scale of one to six. Other control variables such as average age of workers, average years of education, average seniority, as well as gender were included in the regression model. Nonetheless, the impact of these control variables was not analysed. The test produced mixed results. The job satisfaction impacts on productivity for the last two measures of productivity were generally not statistically significant in most of the tests. A positive relationship was found for the first measure. In one of the tests, an approximately 5% increase in value added per hour worked in manufacturing sector was expected as a result of one-point increases in job satisfaction. The impact was higher (i.e., approximately 20%) when the job satisfaction was measured using satisfaction with housing condition as instrumental variable. According to Schmitz (2003), the US and Canada iron-ore industries were able to survive the downturn in the 1980s due to increased productivity. The increase in productivity was possible because of changes in institutional and work rules.

The importance of job satisfaction factors of workers was also highlighted in other studies in developing country for example Egypt. Al-Ayouty (2011) investigated the determinants of productivity in the textile industry of Egypt, and found that many factors affect workers' productivity such as the enjoyment of basic rights, assurance of non-discrimination, provision of a conducive working environment, provision of benefits and incentives, and the avenue for workers to express concerns.

Hoboubi, Choobineh, Ghanavati, Keshavarzi, and Hosseini (2017) carried out a survey in Iranian petrochemical industry to investigate the influence of job stress and job satisfaction on workforce productivity. The results indicate that job stress is not significantly correlated with productivity. However, there is a significant positive correlation between job satisfaction and productivity. The significant components of job satisfaction in their research include shift schedule, role insufficiency and role ambiguity, and supervision.

The primary objective of this research is to find the factors affecting the IRBM field tax auditor and use the information to help the selection of tax officers to be deployed in the field audit team. The individual job satisfaction might be not so good for the selection criteria because it is a daunting task to establish an officer's job satisfaction before any selection is made. However, researches are pointing towards the positive effect of job satisfaction on productivity. Therefore, the inclusion of this factor is expected to enhance the model to be tested in this study. The IRBM has implemented many initiatives to enhance the job satisfaction of its officers and it is useful to investigate the effect of these initiatives to the officers' productivity. Some examples of initiatives include higher salary, better perk and medical benefits, better prospect for promotion, implementation of flexi working hours, opportunities for further studies and so on.

3.13 Happiness and Productivity

Despite numerous studies, the definitive answer on the impact of happiness on productivity remains uncertain (Zalenski, Murphy, & Jenkins, 2008). Zelenski, et al., (2008) and Cropanzano (2001) pointed the reasoning behind different performance

between happy and unhappy employees based on resource maintenance model. According to them, happy employees are more sensitive to opportunities in their work surroundings, more helpful to co-workers, optimistic and confident. In contrast, less happy employees are sensitive to threats in their work environment, defensive and cautious around their co-workers, and less optimistic and less confident, pessimistic and defensive to co-workers. Happiness can be considered as a resource and happy and unhappy people has different amount of this resource. The unhappy employees tend to conserve his limited resource of happiness.

Oswald, Proto and Sgroi (2009) run an experimental study to test whether happiness boosts productivity. The experiment was designed in the "piece-rate" setting and it was found that happier subjects are more productive. However, there is no significant effect of happiness on the quality of the subjects' work.

Numerous other studies supported the positive relationship between happiness and productivity. These include the studies by Joo and Lee (2017) in Korea, Peñalvera, Salanova, Martínez, and Schaufeli (2017) in Spain, and Hakanen and Bakker (2017) in Finland. Joo and Lee (2017) studied the effect of perceived organizational support and psychological capital of 550 employees in South Korea and found that employees who are happy with their work and satisfied with their career are more productive. Peñalvera et al., (2017) conducted a laboratory and field study which comprised of several hundred participants. In both studies, the results revealed there is a positive relationship between group positive emotions (including satisfaction, happiness and comfort) and productivity. Hakanen and Bakker (2017) argued that burnout is a response to prolonged stressors at work and is defined as a chronic

syndrome including exhaustion, cynicism, and reduced professional efficacy. They interviewed employees and their findings indicate that negative private life events may relate to burnout and affect work productivity negatively.

3.14 Further consideration on the determinants of individual productivity

The literature reviews provide a reason to recognize that there are many potential variables affecting productivity of individual workers. For example, in the case of age it was found that the relationship with productivity is concave (See Figure 3.4).

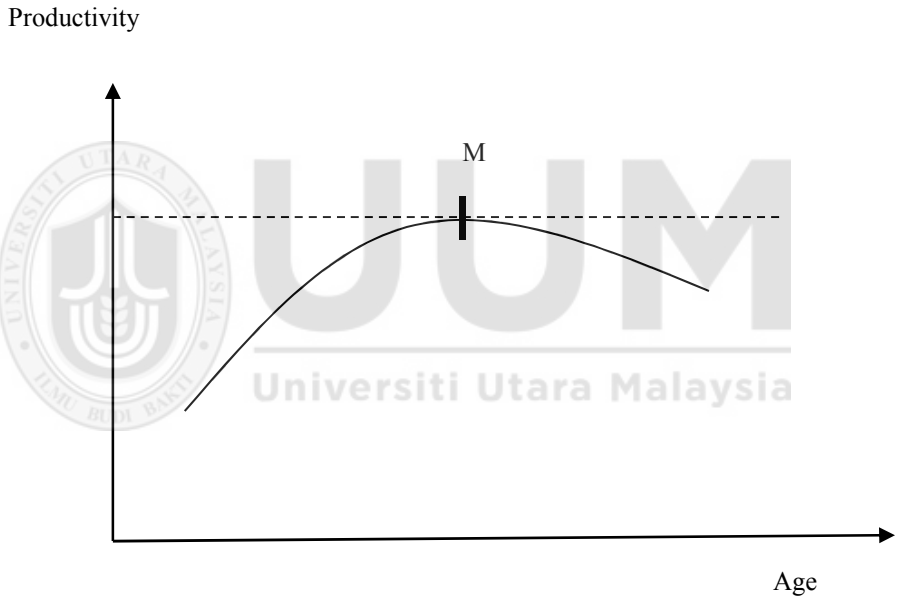

Figure 3.4
The relationship between productivity and age

It is not known whether the relationship between age and productivity is similar with Figure 3.4 in the case of field tax auditor in the IRBM. If it was indeed true, then it is important to identify the age range where the productivity is lingering around the maximum point, M.

Various other individual characteristics (such as gender, education, and work experience) have been included in various tests of individual productivity determinants. The inclusion of these variables depicts a general perception that those factors are responsible for the heterogeneity of individual productivity.

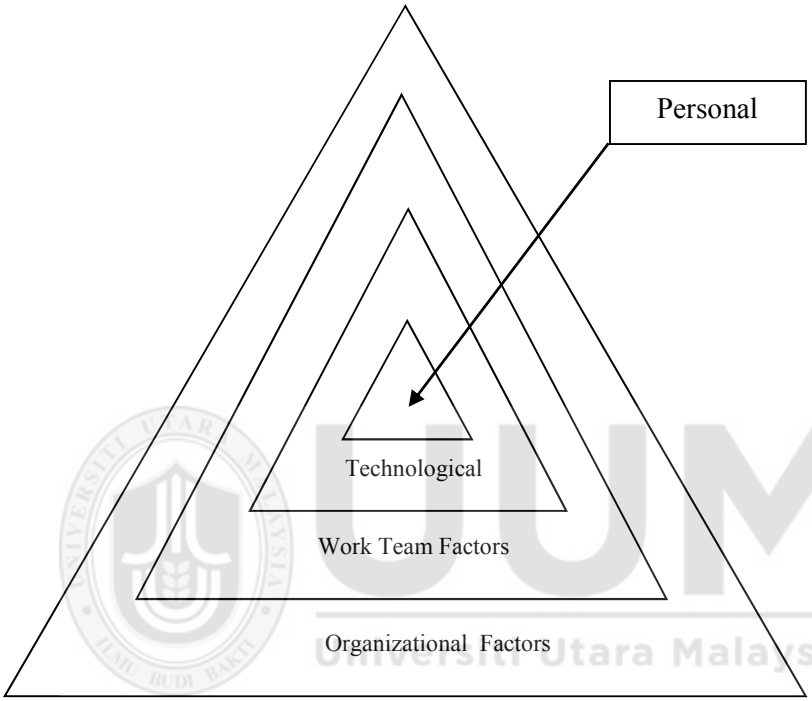

Figure 3.5
Four Level of Influence on Tax Auditors Productivity Model
Source: Adapted from (López-Ortega & Saloma-Velazquez, 2002)

Figure 3.5 shows the possible model of determinant of individual tax auditor productivity. The inner part of the figure signifies the core role of personal factors as a key determinant of a tax auditor's productivity. These personal factors include individual's human capital talent and demographic characteristics. These personal factors have been presented in the preceding literature reviews.

The literature review has provided significant insight into the factors that drives productivity in general, and more importantly the review helps identify the factors

affecting productivity at individual level. However, the factors been identified in the literature cannot be used directly to achieve the objective of finding on the appropriate criteria in selection of potentially high productivity auditors to be deployed in the field audit unit of company taxpayers. This is because no research on productivity of individual auditors in IRBM has been conducted so far. Even if this research found one, the objective is still not met because the purpose is unique for the use of Inland Revenue Board of Malaysia (IRBM). This research will test the variables identified in the literature above using the rarely available real individual data from the IRBM.

3.15 The Role of Management

As described by Lopez-Ortega and Saloma-Velazquez (2002) the work team and organizational factors include some elements related to management and leadership in the organization. Lawrence and Steck (1991) quoted management as " *a process or form of work that involves the guidance or direction of a group of people towards organizational goals or objectives. Managers are catalysts: they make things happen*". There is no doubt that the management factor influences individual productivity. However, this research is a study on individuals within the same organization and not a study at organizational level, therefore the relevance of literatures with regards to organizational factors is not considered material in this research.

3.16 Summary

The concept of productivity in this research is based on the premise of how much output is produced with one unit of input within a given period time, which is one year. The individual field tax auditor in the company unit is considered as one unit of input. The determinants of individual productivity were then explored. One of the main determinants of individual productivity is the amount of human capital talent an individual had in him/her. This human capital talent includes knowledge and skills that are acquired and accumulated through formal education, formal and in-formal training, on the job training, and also through experience doing similar job. The literature surveys also indicate that individual productivity may vary because of some endowed characteristics such as gender, and age. In addition, marital status also asserts some influences on the individual's capacity to produce. Previous researches confirmed that some individual's inner factors are also significant in influencing individual productivity. Individual's religiosity level impacts his/her view and values towards work and thus affects productivity. The amount of effort and persistence one had towards completion of a particular task is influenced by one's motivation, satisfaction with his/her job and general happiness.

CHAPTER FOUR

RESEARCH METHODOLOGY

4.1 Introduction

This chapter is focusing on research methodology relevance to this study. It contains research conceptual framework, the development of hypotheses, research design and procedures to test the relationship between the explanatory variables and the auditor productivity as presented in the literature review.

4.2 Conceptual Framework

The test between productivity of auditors and the independent variables will be based on the framework in Figure 4.1. This framework is mainly based on the Human Capital Theory (Becker, 1962). Figure 4.1 tells that an individual auditor's productivity is dependent on the amount of human capital talents in him/her as well as some inherent demographic characteristics of his/hers. Human capital talent consists of mainly knowledge and skills which are acquired through experience, formal and informal training. Individual demographic characteristics consists of various personal factors i.e., age, gender and marital status.

Individual auditor's productivity is also affected by four factors as elaborated in the literature reviews. These factors are religiosity level, individual motivation, job satisfaction, and general happiness level.

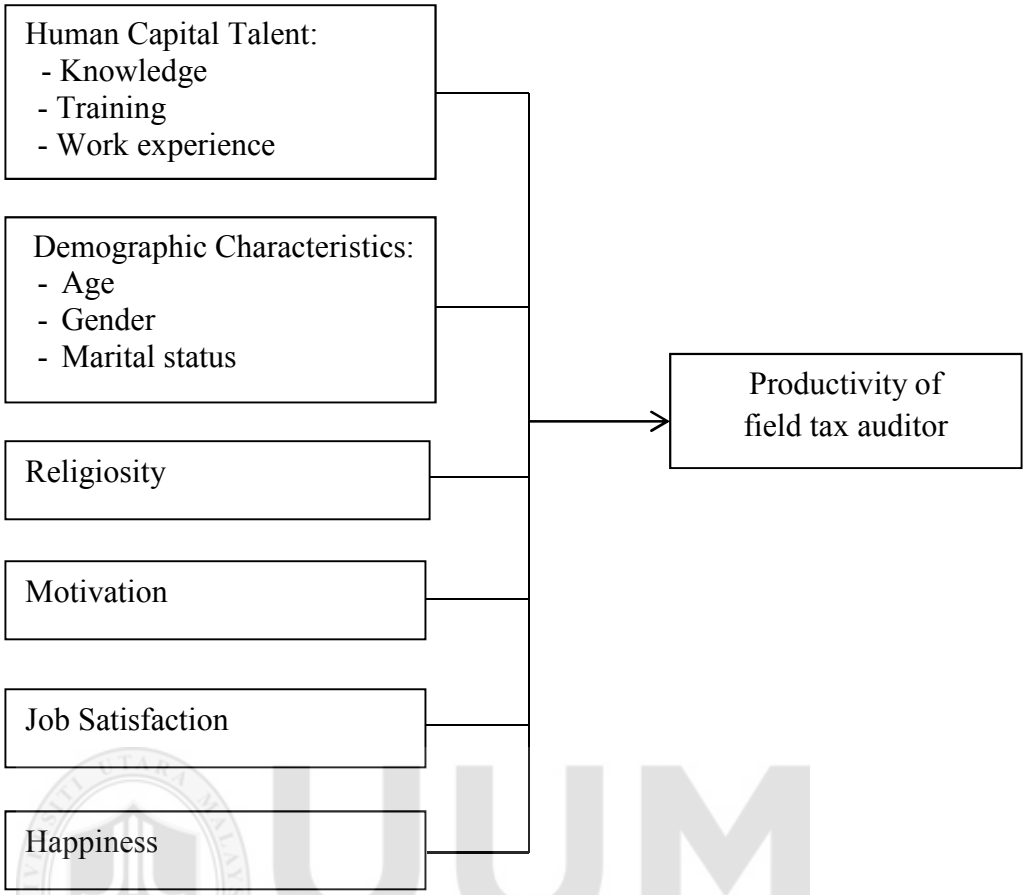

Figure 4.1
Conceptual Framework

The main groups of variables are further represented by actual independent variables as shown in Table 4.1. These independent variables are the actual variables to be tested in this research.

Table 4.1
The determinants of productivity and the associated independent variables

Determinants of Productivity	**Group of Independent Variables**	**Independent Variables**
Human Capital Talent	Knowledge	Area of studies (Major)
	Training and skill	Professional qualification Pass IRBM's introductory course Pass IRBM's advanced course Attendance in audit courses
	Experience	Service with accounting firm Experience in IRBM Experience in field audit (any category) Experience in field audit for company
Demographic Characteristics	Age Gender Marital Status	Age Gender Marital Status
Religiosity Motivation Job Satisfaction Happiness	Religiosity Motivation Job Satisfaction Happiness	Religiosity Motivation Job Satisfaction Happiness

The inclusion of the group of variables as independent variables or determinants of productivity in the model is fully supported by the available literatures. Table 4.2 contains group of independent variables and the relevant scholar who researched in the areas. All the relevant works of the authors in Table 4.2 were reviewed and presented in the literature review section.

Table 4.2
The group of independent variables and the associated relevant studies

Group of Independent Variables	Relevant studies
Academic	Becker (1962), Chang, et al. (2016), Benos & Karagiannis (2016)
Training and skill	Holzer (1988), Pells, et al. (2004), Dearden, et al. (2006), and Aghazadeh (2007) Khan, et al. (2011), Gallarado (2009) Gambin, et al.(2009) Kim & Polyhart (2014), Sepúlveda (2010), Liu & Lu (2016)
Experience	Medoff & Abraham (1980), Maranto & Rodgers (1984), Dunston (1985), Papay & Kraft (2015), and Holzer (1990)
Age	Vandenberghe & Waltenberg (2010), Dostie (2006), Roger & Wasmer (2009), Dearden, et al. (2006), and Turner & Mairesse (2003), Lovász & Rigó (2013)
Gender	World Bank (2012), Turner & Mairesse (2003), Leahey (2006), Petersen, et al. (2006), Ali, et al. (2016), Mueller, et al. (2016)
Marital Status	Korenman & Neumark (1990), Cornaglia & Feldman (2011), Shtudiner (2015), Padmanabhan & Magesh (2016), Krapf, et al. (2017)
Religiosity	Barro & McCleary (2003), Wiseman & Young (2014), and Osman-Gani, et al., (2010)
Motivation	Lai (2011), Robescu & Iancu (2016), Omollo (2015), Ibrahim & Brobbey (2015), Shahzadi, et al.(2014), Horodnic & Zaiţ (2015), Alrahlah (2016)
Job Satisfaction	Bockerman & Ilmakunnas (2010), Schmitz (2003), Al-Ayouty (2011), Hoboubi, et al. (2017)
Happiness	Zelenski, et al., (2008) and Cropanzano (2001), Oswald, et al. (2009), Joo & Lee (2017), Peñalvera, et al. (2017), and Hakanen & Bakker (2017)

A tax auditor works using various tools and works under certain environment which is called enablers in this study. On broad term enablers refer to anything tangible or intangible that support or influence the performance of duty of an auditor but the

auditor has little influence or no control over their existence. The auditor works under the influence of enablers. For examples, the organizational structure and reporting system, the office culture, the working environment, supportive supervisor, government regulations, technology and so on. In this study the enablers are held constant. The reason for this assumption is mainly because every officer is facing the same enablers. For examples every officer in IRBM is subject to the same human resource policies with regards to salary, employment benefits, career development, and office rules. The same also applies to the provision of a conducive working environment both in term of physical and intangible working environment. The physical working environment refers to available office spaces, computers and automation and other similar work supports. The intangible working environment refers to atmosphere or mood at work that created by colleagues, teamwork, supervisor, manager, the top management team and the leader of IRBM. As the top leader (i.e., the CEO of IRBM) constantly reminds and pushes through the same messages and encouragement to all IRBM's employees, it is assumed that the variation in the working environment of each IRBM branches in the study is minimal or insignificant.

4.3 Hypotheses Development

This part contains the hypotheses and initial expectation about the relationships between independent variables and productivity. The expected relationships are mainly based on the literature review presented in Chapter 3.

4.3.1 Knowledge and productivity

The general conclusion from the literature survey is that academic qualification positively affect productivity of workers, see Becker (1962), Chang, et al. (2016), Benos & Karagiannis (2016). In this study, the minimum entry requirement for IRBM's field tax auditor is a graduate with bachelor's degree in any discipline. However, field tax audit works require specialized knowledge in accounting. Due to this fact, it is expected that field tax audit officers with academic qualification in accounting related field are more productive. Therefore, the hypothesis with regards to academic specialization is as follows:

H_1: There is a significant positive relationship between knowledge and productivity of individual field tax auditor in IRBM.

4.3.2 Training and Productivity

Tax auditors who spends more time on education and possesses relevant academic qualification that is related to audit tax work is expected to have higher productivity. Field tax audit work requires specialized knowledge in accounting and tax laws. Therefore, tax auditors who possess an academic qualification in these fields particularly accounting is expected to be more productive. Although all executive officers (assessment) are required to attend similar basic and advanced law and account courses, officers with accounting background can be considered as having advantages because of their ability to read and understand the accounting records.

Tax auditor who spends more hours on official audit training is expected to have higher productivity. The impact of training on productivity is clear in the literature

but the studies are mostly related to industrial sector (Dearden, et al., 2006; Pells, et al., 2004). Most studies support that training related to work would boost productivity. If this is taken as the point of reference for the research hypothesis, it can be deduced that all training related to field audit work should be expected to have positive impact on tax auditor's productivity.

H_2: There is a significant positive relationship between tax auditor's training and productivity among field tax auditor in IRBM.

4.3.3 Work Experience and Productivity

As far as this research is concern, the impact of prior work experience to productivity has not been well published in the literature. Therefore, no indication on the possible impact of prior experience to productivity can be deduced to support this hypothesis. There are many reasons for a positive relationship expectation between prior audit work experience and productivity. Indirectly, it reflects that there is a significant positive relationship between individual productivity and audit related experience prior to joining the tax audit team of company taxpayers. A tax auditor who has prior field work audit experience is assumed to have more knowledge and practical skills in solving audit cases. In addition, tax auditor who had prior field audit work experience has a shorter learning curve due to the similarity in the procedures and rules governing all audit activities in the IRBM. For examples the procedures for auditing all kind of taxpayers are similar. Some minor differences would be in the form of taxpayer's representation during field audit. It is normal for a corporate taxpayer to be represented by tax professional, whereas individual taxpayers (especially small business) are usually not represented.

Although the impact of experience in the current job has been explored in many previous studies, there is no anonymous conclusion about its impact on productivity. A non-significant relationship between experience and productivity was reported by Medoff and Abraham (1980) while positive relationships are concluded by Maranto and Rodgers (1984), and Dunson (1985). None of the above studies addresses a similar issue on work experience as in this study. The hypothesis of this study is based on the premise that tax auditor who has been doing field audit work for a longer period is expected to have mastered the skill of auditing, better than those who had lesser work experience. Hence, it also indicates that there is a significant positive relationship between an auditor's work experiences in the current tax audit work with productivity. Therefore, in considering the work experience of the previous audit related experience prior to joining the tax audit team of company taxpayers as well as the current tax audit work, the following hypothesis could be developed:

H_3: There is a significant positive relationship between tax auditor's work experience and productivity among field tax auditor in IRBM.

4.3.4 Demographic Characteristic and Productivity

The general expectations with regards to the impact of individual demographic characteristics on tax auditor's productivity are discussed in deriving to each hypothesis accordingly. The characteristics are in various angles such as age, gender and marital status.

i- Age

In terms of age, the observations mostly conclude that the most productive tax auditors are those in the age range between 30 to 40 years old. Some studies indicate

that the relationship between age and productivity is non-linear. The most productive age range varies from study to study. According to Dostie (2006) the most productive age in the case of Canada is between 35 and 55 years old. This is consistent with the finding of Roger and Wasmer (2009) and Dearden et al., (2006). Based on the above it is reasonable to expect the middle-aged tax auditor would be the most productive. Undeniable fact is that productivity is deteriorated as age of the workers increase. The main reason is due to health condition, kind of works i.e. problem solving task, learning and technology (Skirbekk, 2003). However, if the kind of works is related to experience, communication ability, the older workers will productive better than the young workers. Taken into consideration this fact, this study developed the following hypothesis:

H_{4a}: There is a significant positive relationship between age and productivity among field tax auditor in IRBM.

ii- Gender

Among the general perception in gender is male tax auditor is more productive than female tax auditor. This expectation is in line with the results of several studies presented in the literature review section (Petersen, et al., 2006; Turner & Mairesse, 2003; World Bank, 2012). Scholars revealed few findings in relation to the gender and productivity such as the differences due to specialization, the development of the country and are of involvement. Undoubtedly, in specialization depth, men are leading in research productivity in the area of physicists as stressed by Turner and Mairesse (2003) and Leahey (2006). In terms of the development of the country, Petersen, Snartland and Milgrom (2006) observed that women in the developed

countries have a low productivity level in the blue-collar occupations. In addition to the area of involvent, obviosly women is reported to be less productive in the area which monopoly by men i.e. agriculture as supported in a research by Ali, Bowen, Deininger and Duponchel (2016). Indirectly, it reflected that gender do have some relationship or effect on productivity and accordingly the following hypothesis is developed:

H_{4b}: There is a significant positive relationship between gender and productivity among field tax auditor in IRBM.

iii- Marital status

In terms of marital status, based on the studies of Korenman and Neumark (1990), Cornaglia and Feldman (2011), Shtudiner (2015), Padmanabhan and Magesh (2016), it is proven that there is a significant difference between married and single individual on the productivity. Concurrently, it is expected to influence the productivity of individual field tax auditor in IRBM too. The marital status undoubtedly has different effect on productivity where married women would be less productive due to focus more on work at home. However, it would have different effect on men where the productivity would be increased perhaps due to maturity and brighter prospect on promotion (Korenman & Neumark, 1990). Differently, in relation to technology, single status workers are more productive and perhaps it is due to less commitment towards family (Padmanabhan & Magesh, 2016). Hence, it is predicted that marital status would give some effect on productivity where the following hypothesis is developed:

H_{4c}: There is a significant positive relationship between marital status and productivity among field tax auditor in IRBM.

4.3.5 Religiosity and Productivity

It is expected that the highly religious tax auditor is more productive in his/her work. This perception is based on Osman-Gani, et al. (2010) which concurred that religiosity influences individual performance in the organization through its impact on personal values. In the presence of work commitment, it is expected that positive personal values (such as honesty) would also boost individual productivity. According to Barro and McCleary (2003), religion is part of culture which has significant influence on various personal traits such as honesty and willingness to work hard.

In fact, Osman-Gani et al., (2010) study also support that religiosity influences individual performance in an organization through its positive impacts on personal values. It is believed that a positive personal value would indirectly develop individual employee performance in an organization. Differently, Barro and McCleary (2003); and Wiseman and Young (2014) found that economic growth would be have a declining impact as religious activity increase. This is believed that the active church attendance could contribute to diversion of resources in the sector's main output (the religious beliefs). Thus, the following hypothesis is constructed:

H_5: There is a significant positive relationship between tax auditor's religiosity and productivity among field tax auditor in IRBM.

4.3.6 Motivation and Productivity

The effect of motivation on productivity is expected to be positive in line with the previous researches by scholars such as Ibrahim and Brobbey (2015) and Omollo (2015). It is expected that a highly motivated employee would work harder and hence, more productive than auditors that are less motivated. According to Lai (2011), an unmotivated or less motivated employee is likely to spend little effort in their works, and likely to produce low quality work and vice versa.

H_6: There is a significant positive relationship between tax auditor's motivation level and productivity among field tax auditor in IRBM.

4.3.7 Job Satisfaction and Productivity

The relationship between job satisfaction and individual productivity is expected to be positive. This expectation is based on the finding of Bockerman and Ilmakunnas (2010) in the case of Finland where job satisfaction was found to positively influence productivity. In fact, the impact of job satisfaction indirectly had increased approximately 20% of productivity among the employees in the manufacturing sector. The positive effect of job satisfaction on productivity also discussed and supported by Schmitz (2003) in the US and Canada as well as by Al-Ayouty (2011) in the textile industry of Egypt. The reason of success in the industry is due to ability to control on productivity which is found due to many factors of job satisfaction such as enjoyment of basic rights, assurance of non-discrimination, provision of a conducive working environment, provision of benefits and incentives, and the avenue for workers to express concerns. In addition, a study by Hoboubi, Choobineh, Ghanavati, Keshavarzi, and Hosseini (2017) indicated that there is a significant

positive correlation between job satisfaction and productivity. The significant components of job satisfaction in their research include shift schedule, role insufficiency and role ambiguity, and supervision. Accordingly, the following hypothesis is developed:

H_7: There is a significant positive relationship between tax auditor's job satisfaction and productivity among field tax auditor in IRBM.

4.3.8 Happiness and Productivity

The positive relationship between an auditor's general happiness with productivity is expected to be positive in line with the finding of various scholars. The positive relationship between happiness and productivity is supported by many studies such as Joo and Lee (2017) in Korea, Peñalvera. et al. (2017) in Spain, and Hakanen and Bakker (2017) in Finland. The studies revealed that happy in the work and career satisfaction including comfort working environment are the main contribution of positive significant effect on productivity. Oswald, Proto and Sgroi (2009) study also found and supported that happier subjects are more productive. On the other hand, Hakanen and Bakker (2017) findings indicate that productivity can be affected negatively as any of negative private life events occurred which may relate to burnout and stress. Hence, the following hypothesis is developed:

H_8: There is a significant positive relationship between tax auditor's general happiness level and productivity among field tax auditor in IRBM.

4.4 Research Design

This study is a quantitative study which focused on the determinants of productivity among field tax auditors in Klang Valley in specific. The unit of analysis is the field tax auditors in Klang Valley, who is selected via simple random sampling. The field tax auditors are given an e-mail questionnaire to be filled and collected feedback via e-mail.

4.5 Operationalized Definition and Measurement of Variables

The operationalized definitions of the terms applied in this study are based on the research area subject. In specific to each, the details of the measurement also discussed. Accordingly, the operationalized definitions and measurement of the related variables are as follows:

4.5.1 Productivity

Productivity means the output of individual tax auditors working in the field audit unit of company taxpayers. The dependent variable in this study is the productivity of an auditor, *Y*. The basic measurement of productivity under the literature is output divided by input or how much output is produced with a unit of input which is a ratio data. Applying this concept to the research, the input consists of an individual tax auditor, whereas the output is the tangible product produced by the individual auditor. Each individual (as an input) varies in quality due to various factors that are represented by the independent variables. It is expected that high quality input produces higher productivity. It is therefore, the variation of input quality that makes the individual auditor productivity varies.

Based on the current practice of IRBM, the productivity of tax auditor consists of four elements as follow:

i- The number of tax files concluded by individual auditor in the calendar year.

This represents the number of taxpayers been audited and concluded. Under the current practice of IRBM an audit case is considered as concluded or finalised when a case is approved by the unit head.

ii- The number of assessments concluded by an individual auditor in a calendar year.

This represents the number of assessments for all audited taxpayers. Each audited taxpayer is considered as one audit file. An audit file may consist of several years of assessment. For example, an audit conducted on a taxpayer in 2016 might include year of assessments 2015, 2014 and 2013. In this scenario, once the auditor had concluded the tax audit exercise, he is said to have finalised one audit file with three years of assessments.

iii- The total value in Ringgit Malaysia of under-declared income recovered in a calendar year.

This is the total value of under-declared income uncovered by the auditor as a result of the audit exercise. In general, larger value of uncovered under-declared income indicates higher auditor productivity. All audit cases are selected based on a standard centralised risk assessment and it is assumed that every audit case has equivalent or almost equivalent potential for discovery of under-declared income.

iv- The total value in Ringgit Malaysia of under-declared tax recovered in a calendar year.

This is the value of tax recovered as a result of the audit exercise.

Relatively to the four elements of auditor productivity measurement as discussed above, the more practical way to capture the individual's productivity is to build a weighted productivity measure. For this purpose, let:

Y1 – Number of audit files concluded (Weight is 25%)

Y2 – Number of assessments concluded (Weight is 25%)

Y3 – Total value of under-declared income uncovered (Weight is 25%)

Y4 – Total value of tax on the under-declared income. (Weight is 25%)

The productivity *Y* will be as follow:

$$Y = 0.25Y1 + 0.25Y2 + 0.25Y3 + 0.25Y4$$

The weight of 25% for each productivity component is consistent with the current practice of IRBM in treating each component indifferently. It is expected that the above formula (if applied without adjustment) would produce unreliable results because of the expected small value of *Y1* and *Y2* relative to *Y3* and *Y4*. Therefore, the value of *Y3* and *Y4* will be scaled down appropriately before applying the formula. In short, the measure of productivity is the weighted of an individual auditor's productivity.

4.5.2 Human Capital Talents

There are three types of human capital talents in this research i.e., auditor's knowledge, training and experience. The operationalized definition and measurements are as the following:

4.5.2.1 Knowledge

Knowledge is referring to the academic qualification which is the major field of study of an auditor. Knowledge is represented by the academic background specialization which refers to the academic specialization of the respondents. Four major specializations have been included namely accounting or related studies; business, economy, management or related studies; science and applied science (such as mathematics, engineering and architecture); social science studies (such as literature, sociology, psychology and communication); and other course or specialization. The construct is represented by a categorical scale which is a nominal data. The description and measurement of the construct is as below:

Table 4.3
Measurement for knowledge

Internal enablers	**Description and measurement**
Academic specialization	1- Directly related to audit work and taxation (Accounting or related qualification) 2- Largely related to audit work and taxation (Business, Economic, and management) 3- Remotely related to audit work with strong calculation orientation (Science, Engineering, and etc.) 4- Remotely related to audit work with less calculation orientation (literature, sociology etc.) 5- Other specialization

4.5.2.2 Training

Training contains several elements i.e. professional qualification and training courses attended in IRBM. These trainings are formal training. The IRBM provided several trainings such the preliminary course, advance course and some specific audit courses. This construct is measured in a form of dichotomous scale and categorical scale where respondents select one category from each component of related items which is a form of nominal data. The related items are professional qualification;

passed IRBM's introductory course; passed IRBM's advance course; and attendance in audit courses.

i- Professional qualification

Professional qualification is an indicator of an affiliation or membership of a respondent to any accounting related professional bodies such as MICPA, ACCA, MIA, CIMA or similar professional bodies. The measurement of professional qualification in a form of categorical scale is as in Table 4.4 below.

ii- Preliminary Course (account and law)

This indicates whether the respondent has attended and passed the preliminary course. This course is compulsory (both attendance and passing examination) for all executive officer (assessment) in the IRBM. In practice, only officers who had passed the preliminary training are selected to join the field tax audit team for corporate taxpayers. However, there could be very few exceptional cases where officers who had just joined are also assigned directly to field audit team for company taxpayers particularly in the smaller IRBM branch offices. Description of the dichotomous scale and measurement of the nominal data is as in Table 4.4 below.

iii- Advanced course (account and law)

This is an indicator whether the respondent has attended and passed the IRBM's advanced course. This course is a continuation of the basic course. The attendance for this course is compulsory but passing the examination is not compulsory. However, officers who have not passed this course would not be qualified for promotion to a higher grade. The specific measurement of the nominal data is as in Table 4.4 below.

iv- Audit related training

In addition to the basic and advanced training courses, the IRBM also organizes specialized audit related trainings. Accordingly, this additional course is counted on times of attending the specialized courses training conducted by IRBM. Some examples of training include audit on developers, and audit on palm oil related business, among others. The measurement of the categorical data is as in Table 4.4 below:

Table 4.4
Measurement for training

Internal enablers	**Description and measurement**
Professional qualification	1- Accounting professional (ACCA, MIA etc.) 2- Other professional qualification 3- No professional qualification
Preliminary course	1- Pass the preliminary course 2- Fail the preliminary course
Advanced course	1- Pass the advanced course 2- Fail the advanced course
Audit related courses attended	1- None 2- One to two 3- Three to four 4- Five or more

4.5.2.3 Experience

Experience consists of an auditor's work experience prior to joining field audit team of company taxpayers and experience in the current assignment as field tax auditor of company taxpayers. This item is measured via few questions such as length of service with accounting firm previously; experience in IRBM; experience in field audit in any category of taxpayers; as well as experience in field audit for company. Each of the questions is elaborated as the following.

i- Service with accounting firm prior to joining IRBM

This is an indicator of experience of a respondent with accounting firms prior to joining IRBM. The dichotomous scale of yes or no is the measurement used in this item which the response is elicit via a nominal scale.

ii- Length of service in IRBM

This is the measurement of the overall length of a respondent's service in the IRBM. Thus, the group of years set would be the option to the respondents in indicating the actual number of years of tax auditor's service experience in IRBM. The related description of the categorical scale and measurement in a form of nominal data is as in Table 4.5 below:

Table 4.5
Measurement for experience (length of service in IRBM)

Internal enablers	Description and measurement
Length of Service in IRBM	The value will take the actual number of years of a tax auditor's service in IRBM. This will be grouped into 5 main groups namely: Group 1: Less than 5 years; Group 2: 5 - 9 years; Group 3: 10 - 14 years; Group 4: 15 - 19 years; and Group 5: 20 or more years

iii- Length of service with field audit (all categories of taxpayer)

This is the measurement of a nominal data of a tax auditor's work experience before joining the audit team of corporate taxpayers. Some officers may have earlier exposure to field auditing through their assignments in other units such as field audit team for non-corporate taxpayers or even tax investigation experience. The

description of the categorical scale and measurement for this item is as in the following table (Table 4.6):

Table 4.6
Measurement for experience (years of audit experience in all categories of taxpayer)

Internal enablers	Description and measurement
Years of Audit Experience (all types of audit)	The value will take the actual number of years of a tax auditor's service and work experience in the field audit. This will be grouped into 4 main groups namely: Group 1: Less than 2 years; Group 2: 2 - 5 years; Group 3: 6 - 9 years; and Group 4: 10 years or more

iv- Length of experience in the current assignment (field audit of company taxpayer)

This is the measurement for the respondents' length of service in the field tax audit of corporate taxpayers i.e., the current job assignment of the respondent. This item is measured as nominal data. The description of the categorical scale and measurement is as indicated in the following Table 4.7:

Table 4.7
Measurement for experience (years of audit experience in current job assignment)

Internal enablers	Description and measurement
Years of Audit Experience (company taxpayers – current job assignment)	The value will take the actual number of years of a tax auditor's service and work experience in the field audit for company taxpayers (the current job assignment). This will be grouped into 4 main groups namely: Group 1: Less than 2 years; Group 2: 2 - 5 years; Group 3: 6 - 9 years; and Group 4: 10 years or more

4.5.3 Demographic Characteristics

Three main elements of demographic characteristics in this research are age, gender, and marital status of the auditor. The demographic characteristics are divided into

three category of indication i.e. age, gender and marital status. The summary of the individual demographic characteristics and the related measurements are summarized as the following:

4.5.3.1 Age

This variable is self-explanatory under categorical scale. For the purposes of this study the tax auditors will be classified into five age groups based on the tax auditors' actual age. The groups are as follows: (i) Group 1: 30 or below; (ii) Group 2: 31-35; (iii) Group 3: 36-40; (iv) Group 4: 41-45; (v) Group 5: 46-50; (vi) Group 6: 51-55; (vii) Group 7: 56 or above. Group 1 might have a range of more than 5 years but in practice it will not be a problem. This is because the entry point for tax officer is university graduate and therefore most new intake of tax officers are probably not younger than 24-year-old. If that is the case then, the effective range for group 1 might be 25 to 30 years old; hence consistency of the age range is maintained. The response is elicited via a nominal scale.

4.5.3.2 Gender

This variable is a self-explanatory nominal scale of response. There would be two general category groups. Relatively the group is divided into male; and female.

4.5.3.3 Marital status

This variable is a self-explanatory nominal scale of response. The information is categorized into: Group 1 for single; Group 2 for married; and Group 3 is for a divorced status.

4.5.4 Religiosity

Religiosity refers to the level of auditor's religious belief. This measures how strong and individual auditor's belief in religion as well as practice what he/she believed. Religiosity measures the respondents feeling about themselves in relation to their belief and practice of their religion. The measurement for religiosity is subjective. The measurement is taken from a voluntary declaration of respondent in the form of Likert scale of one to five. The questionnaires for religiosity were adapted from Huber and Huber (2012). Huber and Huber (2012) divided the measure of individual religiosity into five dimensions namely intellect, ideology, public practice, private practice and experience. Each question represents each dimension respectively and the responses are analysed in a form of interval scale.

There are five questions to measure religiosity level of field tax auditors such as "I studied religion through TV, radio, internet, newspapers, social media and religious books"; and "I participate in religious activities in the communities around me". The indicator for religiosity level is taken by calculating the total score of all questions. A total of 25 (5 x 5) indicate the highest level of religiosity, while the total of five (5 x 1) represents the lowest level of religiosity. The full example of questions is as in Appendix 1.

4.5.5 Motivation

Motivation level refers to the level of urge, effort and focus of an auditor to conclude field audit cases. Motivation measures the respondent's inner drive to complete all field tax audit tasks assigned to her/him. Motivation level could be elevated through

existence and influence of many factors, but these factors are not addressed in this research. It is assumed that respondents know their own motivation level and able to express it into scale according to the Likert scale of one to five in the questionnaires. The questionnaires were adapted and modified from Toure-Tillery and Fishbach (2014) and MySkillsProfile.com (2014). According to Toure-Tillery et al. (2014) motivation is a psychological force that enables action which can be measured through cognitive and affective measure as well as through behavioural measures in terms of interval scale.

There are five questions to measure motivation level which includes "My goal is to achieve the annual work targets as early as possible and as high as possible"; and "I have a high interest in carrying out external audit work". The scores for each question are totalled to get the indicator for motivation level. A total of 25 (5 x 5) indicates the highest level of motivation, while the total of five (5 x 1) represent the lowest level of motivation. The related questions are listed as in Appendix 1.

4.5.6 Job satisfaction

Job satisfaction refers to the level of auditor's sense of self-accomplishment and self-fulfilment in doing field tax audit work. Job satisfaction measures the respondent's feeling about his/her current job in the field tax audit unit. The scale of respondent's satisfaction about his/her assignment is taken from the self- declaration in the questionnaires. According to Sinha (2013), the factors that affect job satisfaction can be classified into five main components namely: empowerment and work environment, working relationship, salary and future prospect, training and work involvement, and job rotation. The questionnaires are designed to meet these factors.

The questionnaires were designed based on the elements mentioned by Sinha (2013). For instance “I feel that I am treated fairly by my supervisor and the management”; and “I have a bright chance to go further in my career at IRBM”. The level of job satisfaction is tested using six questions (refer Appendix 1) with a Likert scale of one to five. The total score of the interval scale is calculated to get the indicator for individual’s job satisfaction level. The total score for the highest job satisfaction level is 30 (6 x 5) while the lowest score of six (6 x 1) indicates the lowest job satisfaction level.

4.5.7 Happiness

Happiness level refers to the auditor’s happiness in general. This is a measure of auditor’s gap of expectation in life. The happiest auditor is expected to alter none of his/current achievement and accomplishment in life. General happiness refers to the feeling of respondent about his/her life in general. It is assumed that one can express whether they are happy or not and put it into the scale. All questions to measure general happiness were taken directly from Diener, Emmons, Larsen, and Griffin (1985).

The general happiness level is tested via Likert scale using five questions which includes “My life is almost the same as the life I want”; and “So far I have acquired the important things I want”. The total score of the interval scale responses are calculated to get the indicator for individual’s general happiness level. A total of five (5 x 1) indicates the lowest happiness level, whereas a total of 25 (5 x 5) indicates the highest general happiness level. The scale for measuring the general happiness level

is Likert scale of one to five as indicated in Appendix 1. The data is analysed via the interval scale responses.

4.6 Data Collection

The survey type of data collection is relevant as the respondents or unit of analysis is field tax auditors of IRBM who have flexible place of operation and scattered all over Klang Valley (Kanuk & Brenson, 1975). This method could provide information about a population in a quick, inexpensive, efficient and accurate manner (Kanuk & Brenson, 1975; Zikmund, Babin, Carr, & Griffin, 2010). In fact, it is quite flexible and popular technique which has undertaken in the last few decades as the standards have become quite scientific and accurate (Kanuk & Brenson, 1975; Zikmund, et al., 2010).

4.6.1 Survey Instruments

The data for this research is collected through questionnaires. The questionnaires are in Malay. This is to ensure that the questions are presented in the language that the respondents have the highest competencies. The full questionnaire set is as in Appendix 1.

4.6.2 Population and Sampling Technique

The population for this research is all field tax auditors serving in company unit throughout Malaysia. Company unit is one of the units in the bigger audit unit in all IRBM's branch throughout Malaysia. Company unit itself has two main functions namely desk audit and field audit. The field audit is selected as this is the subject of

this study. The nature of works for desk audit and field audit in all company units differ substantially. However, the nature of works for field audit in all company units throughout Malaysia is similar. Therefore, the selection of population as above is appropriate. The total population is 437. This information is based on the information provided by the Compliance Department, IRBM. Compliance Department is responsible for designing tax audit policy and monitor its implementation throughout Malaysia.

The total number of potential respondents in the sampling frame is 256 individual field tax auditors serving in all IRBM branches. This is 58.6% of the total population. According to Wilson, Voorhis and Morgan (2007) the rule of thumb for sample size in the case of running a regression to investigate the relationship between variables is approximately 50 samples. A response rate of a minimum of 19.5% of the potential respondents would be adequate.

The sample in this research is selected based on non-random/non-probability judgemental or purposive sampling. According to Kumar (2005) the use of purposive sampling can be considered when the researcher thinks that the selected sample can provide the best information to achieve the objectives of the study. As this study specifically targets field tax auditors in Klang Valley, therefore selecting all individual field tax auditors as sample frame is appropriate. Branches in Klang Valley consist of Pembayar Cukai Besar Branch (CPCB); Jalan Duta Branch; KL Bandar Branch; Cheras Branch; Petaling Jaya Branch; Shah Alam Branch; Wangsa Maju Branch; and Klang Branch.

4.6.4 Data Collection Procedures

The respondents were identified through the help of *Jabatan Pengurusan Insan* (*JPI*) of Inland Revenue Board of Malaysia (IRBM). *JPI* is responsible for human resource management in IRBM and has the information of the current posting of each serving officers.

The questionnaires were delivered to the respondents through email. All respondents were required to complete the survey questionnaires and the answers are required to be returned to the researcher by email.

4.7 Data Analysis

The data is analysed using the basic relationship of dependent and independent variables as follows:

$$Y=f(C,I,\bar{E},\varepsilon) \quad \text{(i)}$$

Translated into actual model in this study:

$$Y=\gamma + \alpha_i C_i + \beta_i I_i + \pi_i S_i + \varepsilon \quad \text{(ii)}$$

Where:

i is represented by 1,2,3……. „;

Ci represent i^{th} Human Capital Talents variables;

I_i represents i^{th} Demographic Characteristics variables; and

S_i represents subjective variables of Religiosity, Motivation, Job Satisfaction and Happiness.

Equation (ii) indicates that γ is the minimum productivity if the model ignores the influence of all the independent variables. Parameter α *is* measuring the contribution of various human capital talents to the productivity. Parameter β measures the contribution of various individual demographic characteristics to the productivity and π measures the contributions of religiosity, motivation, job satisfaction as well as happiness to the productivity. ε is an error term which represents unknown explanatory variables that are not included in either *C, I* or *S*. Some of the excluded unknown variables are expected to contribute positively to the productivity, while some excluded unknown variables are expected to negatively impact the productivity. Taking both effects, the ε is expected to be zero.

The relationship as in (ii) above will be estimated using Simple Multiple Linear Regression Model. The model is developed and run in the SPSS statistical package.

4.8 Pilot Test

Pilot test of data collection was conducted before the actual questionnaires were deployed to gather real data. A total of 50 executive officers from nearby branches were called in batches to test the questionnaire. The officers were those serving in field audit of individual business taxpayers in Klang Valley. They were selected to test the questionnaires because all of them are at the same grade with the target respondents and doing similar scope of job except that these officers are auditing individual business taxpayers. The pilot testers are considered possessing the same level or at least comparable level of comprehension and cognitive ability with the actual target of respondents.

The main purpose of the pilot test was to gather initial feedback on the possible flaws of the questions in the questionnaires. Feedbacks were gathered from the pilot testers/respondents and it was found that all the questionnaires are easily understood, and none found to be confusing. The only concern was that name is required in the original survey. Some pilot testers/respondents expressed their concern that putting names might compromise the truthful answer of the respondents. Due to this reason, name of respondent is dropped in the final questionnaires. All other questions were retained. Nonetheless, it is always possible to identify the owner of the completed questionnaires because deliveries are through email and all emails are unique.

The 50 respondents engaged with field audit on audited businesses. Out of the 50 posted questionnaires for pilot test purposes, 43 are returned with full answers and qualified as well as usable to be further tested in this study (refer Appendix 2). In testing the instrument, the Cronbach's alpha technique is applied to determine the internal consistency (Coakes, 2005b). In addition, the factor analysis that is a form of data reduction technique is taken into consideration. This is a way to determine whether the items are tapping into the same construct towards a more reliable test (Coakes, 2005a; J.F. Hair, Black, Babin, & Andersen, 2010).

On the whole, the Cronbach's alpha value for each construct is ranging from 0.508 to 0.861 (refer Table 4.8). However, few items are deleted and the value increase to the range of 0.561 to 0.861. The lowest reliability level reported for the religious construct with a Cronbach's alpha value of 0.508. This value increased to 0.561 after one item is removed. On the other hand, the highest reliability level is on happiness construct with the Cronbach's alpha value reported as 0.861. This construct

maintained with the original five items without any item being removed. The other constructs such as motivation and satisfaction also reported a slightly change in the Cronbach's alpha after one item is deleted respectively in each construct. The removed or deleted items is necessary due to the correlation in the matrices' value of item is low that is below 0.5 (Joseph F. Hair, Black, Babin, & Anderson, 2010). The item could lead to a problem of sampling adequacy if remained in the analysis.

Table 4.8
Results of reliability test (n=43)

Construct		Number of items		Cronbach's Alpha	
		Before deleting	**After deleting**	**Before deleting**	**After deleting**
1.	Religiosity	5	4	.508	.561
2.	Motivation	5	4	.583	.662
3.	Satisfaction	6	5	.735	.779
4.	Happiness	5	5	.861	.861

In addition to the reliability test, factor analysis is required in determining whether items are patters into the same construct or otherwise (refer Appendix 2). Indeed, the suitability of the data in terms of correlation in the matrices is checked on each construct. Item with correlation value less than 0.30 is deleted. Anti-image correlation matrix is also focused in order to ensure the adequacy of the sample in deriving to the overall fit. Hence, for the adequacy purposes, value of anti-image correlation item of above 0.50 is retained in the model. Then, the appropriateness of data via the Kaiser-Meyer-Olkin (KMO) and Batlett's Test of Sphericity (BTOS) is ensured to derive at KMO's value of above 0.50 and at significance BTOS of 0.000. If it is not achieved, the anti-image correlation matrices are rechecked, and item is deleted to achieve at a minimum value of 0.51.

This data reduction technique is finally derived to a set of crucial items in each construct developed for the study. The summary of the factor analysis result is as highlighted in Table 4.9. In overall, KMO measures of sampling adequacy for the 18 constructs are ranged from 0.649 to 0.825. This range is considered acceptable as the general rule of thumb judged the construct as adequate if above 0.50 (Joseph F. Hair, et al., 2010). The items are religious, motivation, satisfaction and happiness. The highest KMO value is on happiness construct that is 0.825. Whereas, the lowest KMO value is reported in religious construct at 0.649.

In terms of number of factors to be retained, all the 18 constructs are comprised into one factor. The factors are improved accordingly after related item deleted from related constructs. As for the variance explained, the specified percentage of variance explained for religious is 43.78%, motivation is 51.25%, satisfaction and happiness with 58.38% and 69.87% respectively. As for the value of BTOS, all the items are significant (Sig. 0.000).

Table 4.9
The instruments' factor analysis (n=43)

	Construct	No. of items	No. of factors	KMO value	Variance explain
1.	Religiosity	4	1	.649	43.78%
2.	Motivation	4	1	.714	51.25%
3.	Satisfaction	5	1	.789	58.38%
4.	Happiness	5	1	.825	69.87%

In addition to the reliability test where the details as per Appendix 2, correlation analysis is required in determining whether items are patters into the same construct or otherwise. Indeed, the suitability of the data in terms of correlation in the matrices is checked on each construct.

The pilot test results are purposely to check on the suitability of the data, appropriateness of the data as well as on the internal consistency of the data. Indirectly, it represented the fitness of the questionnaire to process with the real data for this research. Using the multiple regression analysis, all items in the questionnaire are remained as it is without any deletion on the question as whole.

CHAPTER FIVE

RESEARCH FINDINGS

5.1 Introduction

This chapter contains the evaluation of the data reliability and its suitability for data analysis. The details of response rate, accuracy of the data entry and descriptive statistics of the constructs are presented in this chapter. The reliability and validity as well as the regression results are also reported in this chapter.

5.2 Response Rate

The questionnaires were emailed on the 27th October 2017 to 256 tax auditors throughout Klang Valley who conducted corporate tax audits during the period of 1st January until 31 December 2016. Second reminder was sent on the 2nd November 2017. A total of 190 (or 74%) questionnaires were returned. Out of this, five were excluded because the respondents were branch manager who supervised tax auditors and they themselves are not tax auditors in practice. In addition, nine questionnaires were incomplete and hence discarded. In total, there were 176 (or 69%) usable questionnaires.

5.3 Accuracy of Data Entry

Data screening was conducted on the usable 176 questionnaire responses to check the accuracy of data entry. To confirm that there are no more errors in the data entry, frequency test was performed on all variables. The test indicates that there is no missing value or out of range data and therefore all cases are usable for further data analysis.

5.4 Descriptive Statistics

Out of the 176 corporate tax auditors in the sample data, about 98 respondents or 55.7 percent comes from tax officers serving in *Cawangan Pembayar Cukai Besar* (CPCB). According to the Inland Revenue Board's Operation Department, CPCB serves corporate taxpayers with annual turnover of more than RM30 million. *Cawangan KL Bandar* (CKLB) is not well represented with only one respondent. However, this is not expected to change the result significantly because corporate tax audit practice in this branch is not different from other branches such as Cheras, Shah Alam, Wangsa Maju and Jalan Duta.

Table 5.1
The number of respondents of each IRBM's selected Branch (n= 176)

IRBM Branches	Frequency	Percent
Cheras	15	8.5
KL Bandar (CKLB)	1	0.6
Pembayar Cukai Besar (CPCB)	98	55.6
Jalan Duta	14	8.0
Klang	9	5.1
Petaling Jaya	8	4.5
Shah Alam	11	6.3
Wangsa Maju	20	11.4
Total	**176**	**100.0**

The composition of demographic characteristics i.e. age, gender and marital status is summarized in Table 5.2. Out of the total of the 176 audit officers in the survey, nearly 73% are groups aged between 31 to 40 years old. From a gender perspective, 105 or 60% are female officers. Accordingly with reference to the marital status, most of the respondents are married (81%).

Table 5.2
Demographic Characteristic (age, gender and marital status) composition (n=176)

	Frequency	Percent
Age		
30 and below	27	15.3
31-35	53	30.1
36-40	75	42.6
41-45	17	9.8
46-50	2	1.1
51-55	2	1.1
	176	**100.0**
Gender		
Male	71	40.3
Female	105	59.7
	176	**100.0**
Marital status		
Single	33	18.8
Married	142	80.6
Other	1	0.6
	176	**100.0**

In terms of academic qualifications (refer Table 5.3) those who hold bachelor's degree consists of 76%. Most of the auditors are having accounting or accounting related qualification (76%), followed by 21% with business, economics, management or equivalent qualification. A small portion of 3% holds other qualifications. In total, about 35% have accounting professional qualifications.

Table 5.3
Academic and Professional Qualification (n=176)

	Frequency	Percent
Highest academic qualification		
Diploma or equivalent	4	2.3
Bachelor or equivalent	133	75.5
Master	38	21.6
PhD	1	0.6
	176	**100.0**

Table 5.3
Academic and Professional Qualification (n=176) (continue)

	Frequency	Percent
Field of study		
Accounting or related	133	75.6
Business, Economy, Management or related	37	21.0
Science or applied science	5	2.8
Science social (Literature, sociology, communication or related)	1	0.6
	176	**100.0**
Professional qualification		
Accounting professional	61	34.7
Non-accounting professional	6	3.4
No professional qualification	109	61.9
	176	**100.0**

From the perspective of experience (refer Table 5.4), more than half (66%) of the auditors has served accounting firm prior to joining IRBM. Taking the cut-off point of 1st January 2016, most of the auditors (67%) have served IRBM for a period of between 5 to 15 years. Most of the auditors have also served 2 to 10 years (74%) in the field audit unit. Narrowing the experience to field audit for company taxpayers (a subset of field audit), the portion reduced to 66%.

Table 5.4
Composition of Experience (n=176)

	Frequency	Percent
Has served accounting firm prior joining IRBM		
Yes	116	65.9
No	60	34.1
	176	**100.0**

Table 5.4
Composition of Experience (n=176) (continue)

	Frequency	Percent
Years of Service in IRBM		
Less than 5 years	48	27.3
5 – 9 years	67	38.0
10 – 14 years	51	29.0
15 – 19 years	9	5.1
20 years or more	1	0.6
	176	**100.0**
Years of experience in field audit (all types)		
Less than 2 years	28	15.9
2 – 5 years	85	48.3
6 – 9 years	46	26.1
10 years or more	17	9.7
	176	**100.0**
Year of experience in field audit of company taxpayer		
Less than 2 years	52	29.5
2 – 5 years	90	51.2
6 – 9 years	26	14.8
10 years or more	8	4.5
	176	**100.00**

Two major courses aimed to enhance technical ability of IRBM's auditors are the preliminary course and advanced course (refer Table 5.5). The majority of the field tax auditors have passed the preliminary and advanced courses with 73% and 61% respectively. In terms of frequency of attending courses, most of them attend between one and two times (refer Table 5.5).

Table 5.5
Composition of Training (n=176)

	Frequency	Percent
Passed preliminary course		
Yes	128	72.7
No	48	27.3
	176	**100.0**

Table 5.5
Composition of Training (n=176) (continue)

	Frequency	Percent
Passed advance course		
Yes	107	60.8
No	69	39.2
	176	**100.0**
The number of audit courses attended		
None	14	8.0
1 to 2	62	35.2
3 to 4	47	26.7
5 or more	53	30.1
	176	**100.0**

5.4.1 Derived Variables

The productivity variable (i.e., the dependent variable LOGDEP) in this research is a derived variable. It is a combination of four (4) variables namely individual audit discovery in Malaysian Ringgit (MYR), additional tax in MYR, penalty in MYR and the total audit settlement in MYR. Each component has a weight of 25% according to the practice of IRBM. Table 5.6 shows the combined component after the weightage is applied. Table 5.6 shows the minimum value of RM58, 902 and the maximum value of RM870, 658, 504. The range between the minimum and maximum is huge; therefore, this derived variable is needs to be transformed into Log 10 so that it can be used for further analysis.

Table 5.6
The descriptive statistics of productivity

	N	Minimum	Maximum	Mean	Std. Deviation
Weighted Productivity of Auditors	176	58,902	870,658,504	12,307,812	82,816,751
Valid N (listwise)	176				

5.4.2 Construct Variables

In addition to the demographic, training, and experience variables, this research also measured several other construct variables (refer Appendix 3). The other construct are consisted of variables that measure the religiosity (*TAGAMA*), motivation (*TMOTIVASI*), job satisfaction (*TPUAS*) and happiness (*TGEMBIRA*). Each construct contains several item tested which each scores were added to arrive at total scores. Further elaboration is provided in the section of reliability test. The descriptive statistics of the construct variables is presented in the following Table 5.7.

Table 5.7
The descriptive statistics of the construct variables (n=176)

	N	Minimum	Maximum	Mean	Std. Deviation
TAGAMA	176	5	25	21.18	2.649
TMOTIVASI	176	11	25	23.06	2.329
TPUAS	176	14	30	24.84	3.513
TGEMBIRA	176	7	25	18.84	3.518
Valid N (listwise)	176				

5.5 Reliability and Validity Tests

All construct variables have been tested for reliability and validity (refer Appendix 3). Table 5.8 shows the result of the tests. There are five items in the religiosity (*TAGAMA*), motivation *(TMOTIVASI)* and happiness *(TGEMBIRA)* constructs and six items tested for the job satisfaction *(TPUAS)* construct. All constructs represented by the value of Cronbach's alpha which are above the rule of thumbs of 0.700. Analysis shows that its reliability level is satisfactory with Cronbach's alpha between

0.718 and 0.806 as in Table 5.8. Overall, the Kaiser-Meyer-Olkin (KMO) which measures of sampling adequacy for the four constructs are ranged from 0.742 to 0.831. This range is considered acceptable as the general rule of thumb judged the construct as adequate if above 0.50 (Hair et al., 2010). The highest KMO is for the motivation construct (0.831) and the lowest is in the religiosity construct as presented in Table 5.8. All items for the four construct are group into one factor and the value of Batlett's Test of Sphericity (BTOS) are all significant (Sig. 0.000).

Table 5.8
Reliability statistics of construct variables (n=176)

Construct variables	**N of items**	**Cronbach's Alpha**	**KMO value**	**Eigenvalue (% variance)**
TAGAMA	5	0.718	0.742	48.27%
TMOTIVASI	5	0.798	0.831	58.16%
TPUAS	6	0.806	0.749	50.96%
TGEMBIRA	5	0.705	.0759	58.53%

The five items for religiosity *(TAGAMA)* construct with Cronbach's alpha of 0.718 are reliable as it is above the accepted rule of thumb of 0.700.The correlation matrix in Table 5.9 shows good correlation between the five items in the construct.

Table 5.9
Inter-Item Correlation Matrix for religiosity (TAGAMA) construct (n=176)

Items in the questionnaires	4(a)	4(b)	4(c)	4(d)	4(e)
4(a)	1.000	.293	.438	.584	.273
4(b)	.293	1.000	.158	.349	.359
4(c)	.438	.158	1.000	.411	.172
4(d)	.584	.349	.411	1.000	.412
4(e)	.273	.359	.172	.412	1.000

The next construct is the motivation (*TMOTIVASI*) construct which also has of five items. The Cronbach's Alpha reading of 0.798 is satisfactory compared with the rule

of thumb of 0.700. Correlation matrix between the items in the construct is also satisfactory (refer Table 5.10).

Table 5.10
Inter-Item Correlation Matrix for motivation (TMOTIVASI) construct (n=176)

Items in the questionnaires	5(a)	5(b)	5(c)	5(d)	5(e)
5(a)	1.000	.519	.630	.448	.348
5(b)	.519	1.000	.615	.446	.341
5(c)	.630	.615	1.000	.576	.430
5(d)	.448	.446	.576	1.000	.348
5(e)	.348	.341	.430	.348	1.000

The third construct is the job satisfaction (*TPUAS*), measures the level of auditors' job satisfaction. It has six items which Cronbach's alpha reading at satisfactory level of 0.806. Table 5.11 shows the correlation matrix between the items which are satisfactory.

Table 5.11
Inter-Item Correlation Matrix for job satisfaction (TPUAS) construct (n=176)

Items in the questionnaires	6(a)	6(b)	6(c)	6(d)	6(e)	6(f)
6(a)	1.000	.455	.791	.302	.435	.229
6(b)	.455	1.000	.512	.340	.248	.369
6(c)	.791	.512	1.000	.461	.453	.371
6(d)	.302	.340	.461	1.000	.375	.357
6(e)	.435	.248	.453	.375	1.000	.357
6(f)	.229	.369	.371	.357	.357	1.000

The fourth construct is the happiness (*TGEMBIRA)*, with five items in it. Cronbach's alpha of the construct is 0.710 which is also at satisfactory level compared to the rule of thumb of 0.700. The correlation between the items is also satisfactory (refer Table 5.12).

Table 5.12
Inter-Item Correlation Matrix for happiness (TGEMBIRA) construct (n=176)

Items in the questionnaires	7(a)	7(b)	7(c)	7(d)	7 (e)
7(a)	1.000	.278	.236	.197	.066
7(b)	.278	1.000	.881	.697	.513
7(c)	.236	.881	1.000	.632	.465
7(d)	.197	.697	.632	1.000	.434
7 (e)	.066	.513	.465	.434	1.000

5.6 Model Determination

This research attempts to seek the determinant of dependent variable i.e., the auditor's productivity (LOGDEP). For this purpose, the following model will be used:

$$LOGDEP = a + b_1 TAGAMA + b_2 TMOTIVASI + b_3 TPUAS + b_4 TGEMBIRA + b_5 UMUR + b_6 JANTINA + b_7 TARAFKAHWIN + b_8 BIDANG + b_9 PROF + b_{10} AFE + b_{11} EXPDLHDN + b_{12} EXPAUDLUAR + b_{13} EXPAUDLCO + b_{14} LULUSKURSUS1 + b_{15} LULUSKURSUS2 + b_{16} AUDLUAR + \varepsilon$$

Where, *LOGDEP* = Tax auditor's productivity

a = constant

$b_1 TAGAMA$ = Religiosity

$b_2 TMOTIVASI$ = Motivation

$b_3 TPUAS$ = Job satisfaction

$b_4 TGEMBIRA$ = Happiness

$b_5 UMUR$ = Age

$b_6 JANTINA$ = Gender

$b_7 TARAFKAHWIN$ = Marital status

$b_8 BIDANG$ = Area of study

$b_9 PROF$ = Professional status

$b_{10} AFE$ = Service with accounting firm

$b_{11}EXPDLHDN$ = Experience in IRBM

$b_{12}EXPAUDLUAR$ = Experience in field audit (any category)

$b_{13}EXPAUDLCO$ = Experience in field audit for company

$b_{14}LULUSKURSUS1$ = Pass introductory course

$b_{15}LULUSKURSUS2$ = Pass advanced course

$b_{16}AUDLUAR$ = Outside course

ε = error

The independent variables in above model determination are identified in the actual analysis as Table 5.13 follow:

Table 5.13
Grouping of independent variables

Class of variables	**Independent Variables ****
Religiosity	TAGAMA
Motivation	TMOTIVASI
Satisfaction	TPUAS
Happiness	TGEMBIRA
Age	umur31KE35
	umur36KE40
	umur41KE45
	umur46KE50
	umur51KE55
Gender	LELAKI
Marital Status	KAHWIN
	LAIN2
Academic Specialization	BUSECON
	SAINS
	SAINSSOSIAL
	BUKANAKAUN
Professional Qualification	TIADAPRO
Accounting Firm Experience	AFE
Experience in LHDNM	L-5TAHUN<10
	L-10TAHUN<15
	L-15TAHUN<20
	L-20ATAS

Table 5.13
Grouping of independent variables (continue)

Class of variables	Independent Variables **
Experience in Field Audit	AL-2TAHUN<6
	AL-6TAHUN<10
	AL-ATAS10
Experience in Company	ALC-6AHUN<10
Field Audit	ALC-10ATAS
Pass Course 1	PLULUS
Pass Course 2	ALULUS
Field Audit Training	audluar1HGGA2
	audluar3HGGA4
	audluar5ATAS

*** Note: Refer to Appendix 4 for description of each independent variable*

5.7 Multivariate Assumption

However, before the above model is tested, several assumptions must be surpassed. The first assumption is normality. The following Figure (refer Figure 5.1) shows the regression residual plot which is balanced bell-shaped. The Normal P-P Plot in Figure 5.2 indicates that the residual is not drastically deviate from the 45 degrees line. As such assumption of normality is reasonable.

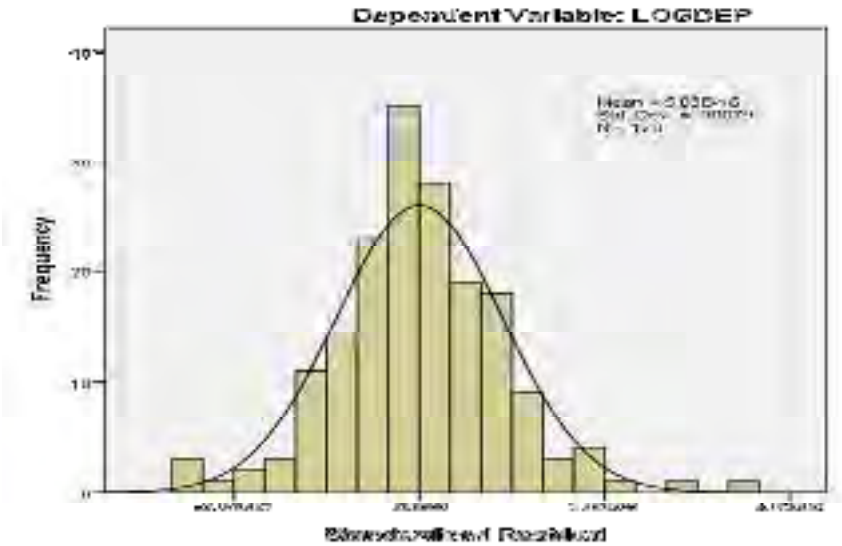

Figure 5.1
Frequency of the Regression Standardized Residual

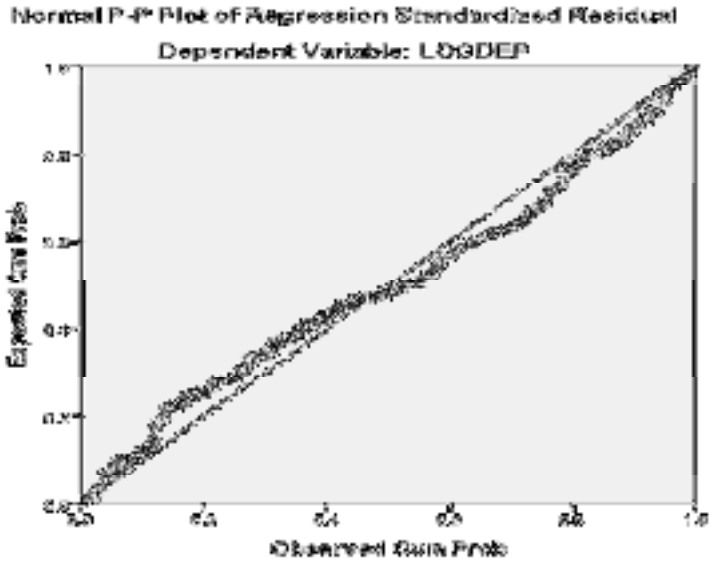

Figure 5.2
P-P Plot of the Regression Standardized Residual

The scatterplot of Figure 5.3 shows that there is no obvious pattern as points are equally distributed on the X axis and Y axis. Therefore, the assumption of homoscedasticity is fulfilled.

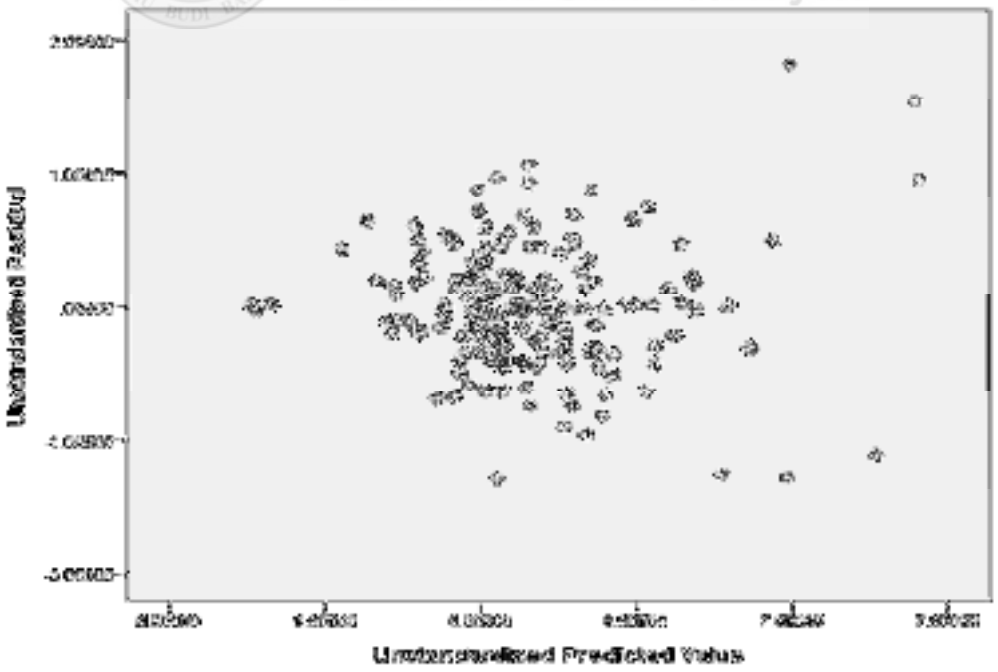

Figure 5.3
Scatterplot of Unstandardized Predicted Value versus Unstandardized Residual

The independent variables (IV) have been tested for existence of multi-collinearity by calculating Variance Inflation Factor (VIF). None of the IV has a value exceeding 10, therefore the assumption of an absence of multi-collinearity is surpassed. The VIFs are estimated and reported in Table 5.14.

Table 5.14
Collinearity tests of independent variables

Independent Variables	**Collinearity Statistics**	
	Tolerance	**Variance Inflation Factor (VIF)**
TAGAMA	.783	1.277
TMOTIVASI	.604	1.656
TPUAS	.537	1.861
TGEMBIRA	.658	1.519
umur31KE35	.292	3.426
umur36KE40	.185	5.418
umur41KE45	.357	2.804
umur46KE50	.657	1.521
umur51KE55	.320	3.124
LELAKI	.761	1.315
KAHWIN	.811	1.232
LAIN2	.878	1.139
BUSECON	.515	1.942
SAINS	.523	1.913
SAINSSOSIAL	.871	1.148
BUKANAKAUN	.582	1.718
TIADAPRO	.475	2.105
AFE	.443	2.259
L-5TAHUN<10	.282	3.543
L-10TAHUN<15	.219	4.557
L-15TAHUN<20	.361	2.767
L-20ATAS	.340	2.943
AL-2TAHUN<6	.357	2.804
AL-6TAHUN<10	.278	3.593
AL-ATAS10	.311	3.217
ALC-6AHUN<10	.594	1.685
ALC-10ATAS	.475	2.103
PLULUS	.317	3.154
ALULUS	.263	3.804
audluar1HGGA2	.221	4.535
audluar3HGGA4	.218	4.578
audluar5ATAS	.197	5.075

The description of the independent variables is presented in Appendix 4. All the assumptions for linear regression are fulfilled; therefore, the multiple linear regression models are estimated.

5.8 Regression Results

The adjusted R square is 0.166 (Table 5.15) indicating that this model can predict 16.6% of productivity movements by using six significant variables in the equation (i.e. human capital talents; demographic characteristics; religiosity level; motivation level; job satisfaction level; and happiness level).

Table 5.15
Linear Regression Model: Model Fit Summary

R	R Square	Adjusted R Square	Standard Error	R Square Change	F Change
0.564	0.318	0.166	0.52765	0.318	2.085*

* $p < 0.01$

Based on ANOVA in Table 5.16, the whole model is significant with F statistics of 2.085 (p = 0.01 which is less than the conventional 5% significant level).

Table 5.16
Linear Regression Model 1: ANOVA

	Sum of Squares	df	Mean Square	F
Regression	18.578	32	.581	2.085*
Residual	39.814	143	.278	
Total	58.392	175		

* $p<0.01$

Based on the coefficients estimate in Table 5.17, a tax auditor's productivity increases by 1 unit (in log 10) resulting from 0.034 increases in job satisfaction. Auditors in the age range of 46 to 50 years old tend to be less productive as

compared with other age by about 1 unit. Similar direction in productivity is observed among auditors from science or applied science background. Science and applied science graduate produce 1.02 units lower compared to auditors coming from other field of studies. The negative impact of age on auditor's productivity is significant after he/she has served IRBM for more than 20 years. It has the largest coefficient in the model which is 2.328 unit compared to other categories. It seems that the longer an auditor served in the field audit for company taxpayer (the auditor's current assignment) the more productive he/she would be. Those who have served in the field audit for company taxpayer between 6 and 10 years have higher productivity about 0.43 unit compared to other categories. A more significant increase in productivity is observed for those who have already served the field tax audit for company for 10 years or more. This class of auditors are producing 0.94 units higher than other categories of auditors with different length of experience in field audit for company taxpayers.

Table 5.17
Linear Regression Model: Coefficient estimates. Dependent variable - Productivity

	Beta	**Standard Error**	**t**
(Constant)	5.761*	.559	10.299
TAGAMA	0.015	.017	.885
TMOTIVASI	-0.037	.022	-1.656
TPUAS	.034**	.015	2.208
TGEMBIRA	-0.005	.014	-.403
umur31KE35	-0.032	.160	-.201
umur36KE40	0.006	.187	.032
umur41KE45	-0.028	.225	-.124
umur46KE50	-0.988**	.463	-2.134
umur51KE55	0.470	.663	.709
LELAKI	0.105	.093	1.128
KAHWIN	0.087	.112	.777
LAIN2	0.571	.565	1.011
BUSECON	0.041	.136	.302
SAINS	-0.783**	.331	-2.364

Table 5.17
Linear Regression Model: Coefficient estimates. Dependent variable – Productivity

	Beta	Standard Error	t
SAINSSOSIAL	0.202	.567	.356
BUKANAKAUN	0.393	.287	1.368
TIADAPRO	-0.070	.119	-.586
AFE	0.053	.126	.421
L-5TAHUN<10	0.018	.154	.119
L-10TAHUN<15	0.151	.187	.808
L-15TAHUN<20	0.410	.300	1.365
L-20ATAS	-2.328**	.908	-2.565
AL-2TAHUN<6	0.006	.133	.043
AL-6TAHUN<10	0.091	.172	.533
AL-ATAS10	0.194	.241	.804
ALC-6AHUN<10	0.335**	.145	2.300
ALC-10ATAS	0.841*	.295	2.848
PLULUS	-0.297	.159	-1.876
ALULUS	0.031	.159	.193
audluar1HGGA2	0.056	.177	.317
audluar3HGGA4	0.127	.192	.660
audluar5ATAS	0.129	.195	.658

* $p < 0.01$ ** $p < 0.05$

In terms of model, the following is the summary of the regression results. In deriving at these results, few categories of variables had been set as reference group for analysis purposes due to the nature of the variables are in categorical data.

$$
\begin{aligned}
LOGDEP = {} & 5.76 + 0.015TAGAMA - 0.037TMOTIVASI + 0.034TPUAS - 0.005TGEMBIRA \\
& - 0.032umur31KE35 + 0.06umur36KE40 - 0.028umur41KE45 \\
& - 0.988umur46KE50 + 0.470umur51KE55 + 0.105LELAKI \\
& + 0.087KAHWIN + 0.571LAIN2 + 0.041BUSECON - 0.783SAINS \\
& + 0.202SAINSSOSIAL + 0.393BUKANAKAUN - 0.07TIADAPRO \\
& + 0.053AFE + 0.018\,(L - 5TAHUN < 10) + 0.151(L - 10TAHUN < 15) \\
& + 0.410(L - 15TAHUN < 20) - 2.328(L - 20ATAS) \\
& + 0.006(AL - 2TAHUN < 6) + 0.091(AL - 6TAHUN < 10) \\
& + 0.194(AL - ATAS10) + 0.335(ALC - 6TAHUN < 10) \\
& + 0.841(ALC - 10ATAS) - 0.297PLULUS + 0.031ALULUS \\
& + 0.056audluar1HGGA2 + 0.127audluar3HGGA4 + 0.129audluar5ATAS
\end{aligned}
$$

The groups been referred for the categorical variables are as follows:

i. Age: Below age of 31 years old
ii. Gender: Female
iii. Marital status: Single
iv. Field of study or major: Accounting
v. Experience working with accounting firm: No
vi. Length of service with IRBM: Less than 5 years
vii. Overall experience in field audit: Less than 2 years
viii. Experience in field audit of company taxpayer: Less than 5 years
ix. Passed IRBM's preliminary course: No
x. Passed IRBM's advance course: No
xi. Number of audit courses attended: None

5.9 Summary

In general, the summary of the results reflected that job satisfaction has a positive impact on field auditors' productivity. In terms of age which is considered as an important determinant of field auditors' productivity, older auditors tend to be less productive. Academically, field auditors with science and applied science background are less productive. In relation to the experience, field audit officers who have serve longer in IRBM tend to be less productive. However, field auditors who have more years of experience in the current job assignment are more productive. The increase in productivity is expected to be higher once a field audit officers had more than six years of auditing experience in the current job.

CHAPTER SIX

DISCUSSIONS, RECOMMENDATIONS AND CONCLUSIONS

6.1 Introduction

Specifically, this chapter is divided into several parts. The first part is a summary of the analysis of findings for further discussion. Then, proceed with a discussion on the implications of this research on the policy. Accordingly, the limitations, future research recommendation and conclusion are drawn to close the discussion on the topic of this research.

6.2 Analysis of Findings

The purpose of this research is to identify factors that can be used as criteria to select potential IRBM officers to be deployed in the field audit for corporate taxpayer in various IRBM branches. Several factors in accordance with the productivity literature were tested based on data gathered from questionnaires. The results of the test are elaborated in the previous section. Overall, the model is significant, however only six out of 32 tested items are significant. Though the overall results bring little to help in selection of auditors to be deployed in the field audit of company taxpayers, the findings are nevertheless important for several reasons. These reasons will be discussed in the foregoing sections.

6.2.1 Human Capital Talents

Three of the human capital talents components are identified as asserting some influence on field tax auditors' productivity in the corporate audit unit. These factors are knowledge in terms of academic specialization and experience.

6.2.1.1 The role of academic specialization - knowledge

The works of field tax auditors in IRBM include inspection and reading through accounting reports and accounting records. Auditors need to make sure that a company's reported incomes are truthful and in accordance with the tax laws. The works require deep knowledge and understanding of accounting; hence, auditors that specialized in accounting in their studies are expected to have initial edges over their colleagues from other fields. The result showing lower productivity of auditors with science and applied science specializations is expected.

The result suggests that IRBM should take extra measures if it wants to deploy audit officers of science and applied science specialization to the field tax audit of company taxpayers. At the same time, something needs to be done to ensure that those who were already in the field tax audit for company taxpayers are provided with proper help to ensure that they are at par with other audit officers.

6.2.1.2 The role of experience

The results suggest that the length of experience in IRBM is important, but it is only counting towards higher productivity when the experience is related to the current job. In the results, although a field audit officers had more than 20-years of experience in IRBM; the experience has not helped this officer to achieve higher productivity. Nonetheless, this finding is less significant because inspection of the data indicates that only one officer falls under this category.

A more significant finding on experience is the effect of tenure in the current job to productivity. Table 5.17 shows that officers who have served in the field audit of

company taxpayer for more than six years are more productive. Higher productivity is even more noticeable (as indicated by the larger coefficient) when an officer reached 10 years or more experience in the current job. This finding suggests that if IRBM continues with the current practice in officer deployment to the field audit unit of company taxpayers, it cannot expect for higher productivity of tax auditor in the first six years. The problem to solve is how to shorten this six-year? Additionally, the question arose about the retention policy of this high-productivity group. These two questions are not addressed in this research. However, some speculative answers are worth for further studies. For example, IRBM can consider a more intensive "on the job training" to speed up the transfer of knowledge from the more experience officers to the lesser experience officers. Additionally, to retain the experience officers in the field audit of company taxpayers, special retention scheme could be created.

6.2.1.3 Other human capital variables

It is quite puzzling why productivity of auditors is not significantly affected by some of the variables that are considered as core knowledge required by auditors to perform their duties effectively and successfully. One of the questions is why auditors who had passed preliminary course did not demonstrate a significantly higher productivity? Similarly, auditors who had passed IRBM's advance course did not significantly demonstrate significantly higher productivity. Having passed the preliminary and advance course indicates that an auditor has achieved sufficient technical competency in discharging her/his duties as tax officers in general and can be considered as well-equipped for field audit works. Unfortunately, the questionnaire did not include a question whether those who have not passed the two

courses have indeed attended the two courses. Assuming those who have not passed are indeed had attended the courses, it can be speculated that passing the exam might be not be so important once an officer had attended them. This finding also raised the question of the relevancy of audit module in the preliminary and advance course.

6.2.2 Demographic Characteristics

Evidence from the regression results suggest that male and female officers are not significantly differs in their productivities. Similarly, marital status does not significantly impact productivity. This is an indication that IRBM can equally trust officers of any gender regardless of their marital status to be equally productive given the opportunity to serve in the field tax audit for company taxpayers. In the past, IRBM has never used gender and marital status as criteria for deploying officers to the field audit for company taxpayers. It is therefore appropriate to recommend that the IRBM should continue with this practice.

Another demographic characteristic in question is age. According to the results, field tax auditors from the age of 46 to 50 years old are less productive than other age groups. The deficiency in productivity is quite significant that is minus 0.988 on log scale. There are two important implications of this observation. Firstly, older auditor i.e., aged more than 46 years is not the best choice for task involving field audit of company taxpayers. Secondly, if IRBM had to put these officers in the company field audit unit, something should be done to ensure that this group is equally productive compared to other age groups.

6.2.3 Religiosity Level

There is no evidence from this research to suggest any impact of religiosity level on auditors' productivity. The possible minimum total score for religiosity questionnaires is five while the maximum is 25. Most of the respondents' scores on religiosity measurement fall in the range of 20 to 25 which makes the variation in religiosity score too small to affect the individual productivity. Indirectly, in relation to this study on the productivity of field tax auditor of company, religiosity does not have any impact. The individual religiosity which is measured in terms of intellect, ideology, public practice, private practice and experience have no strength in ensuring the productivity could be increase as religiosity level increase.

6.2.4 Motivation Level

Like the case of religiosity, the motivation factor did not appear to significantly affect productivity of auditors. Even though, most of the respondents appear to be highly motivated, the effect on productivity does not significantly exist. Perhaps, due to this it is not possible to isolate the effect of motivation on individual productivity. This is because of the possible few reasons such as unrevealed or less measurement on the difficulties of the task assigned to the field tax auditor. The level of task's difficulties is seem to have some impact on productivity where the highest level of motivation could not ensure the highest productivity (Robescu & Iancu, 2016) Undeniable also that an increase in performance might not happen even if an employee is motivated if the person has inadequate knowledge and skill for the task. Hence, this could be the possible explanation since training and skill also have little impact on productivity in this particular research.

6.2.5 Job Satisfaction Level

Based on the regression results, job satisfaction has a positive impact on auditors' productivity. However, the coefficient is small (i.e., 0.034) therefore, the impact on productivity is minimal. The distribution clustered heavily to the right (high job satisfaction) and perhaps this is the reason why its impact on the auditors' productivity is small. This is supported with Bockerman and Ilmakunnas (2010) study where there is no other effect or is rather small when job satisfactions were already on the high side meaning very much satisfied with the job, thus making it difficult to improve job satisfaction further. Thus, the initiatives to enhance the job satisfaction of its officers by IRBM such as higher salary, better perk and medical benefits, better prospect for promotion, and implementation of flexi working hours, are an outstanding effort and create a very high satisfaction among the staffs of IRBM. As for that, other initiatives are not necessary as it could give no or little impact on future productivity to the staffs.

6.2.6 Happiness Level

Compared to the first three construct variables, the general happiness level has a more diverse distribution. However, there is no strong evidence to support the hypothesis that general happiness level affects the productivity of field tax auditors of company taxpayers. Although many studies supported that the level of happiness might affect the productivity, yet in this research it is not approved. Perhaps the explanation is almost the same as the stage of job satisfaction, where the IRBM staffs are all very much happy with their task and assignment. As for that, the productivity

could not have any impact due to the level of happiness as the individual happiness already in the highest level.

6.3 Implication to the Theory

The basic premise of the human capital theory (Becker, 1962) is investment in human capital will enhance prospect for higher future real income. Assuming that the level of real income is positively correlated with productivity, as discussed by Becker (1962), higher level of human capital will enhance individual productivity. The results show that there is no significant difference in the productivity of auditors who had passed advance course with those who had not. Similarly, there is no significant difference in the productivity of auditors who had passed preliminary course with those who had not. Assuming that passing the examinations indicate higher level of human capital, the result seemed not in line with the expectation of the human capital theory. This result leads to several speculations as follows:

i. The impact of human capital investment on individual productivity can be better measured by comparing those who had zero investment with those who had positive value of human capital investment. It is a practice that the IRBM only deploys executive officer to the field audit for company taxpayer once he/she had attended preliminary course.

ii. Once a group of individuals had the minimum required human capital investment to do certain task, any impact of extra value of human capital would be difficult to isolate. Assuming that the minimum human capital investment standard required for field audit is attending the preliminary course, then passing the examination (extra value of human capital investment) would be secondary and its impact would be difficult to measure.

Illustration to the above point is presented in Figure 6.1 as follows:

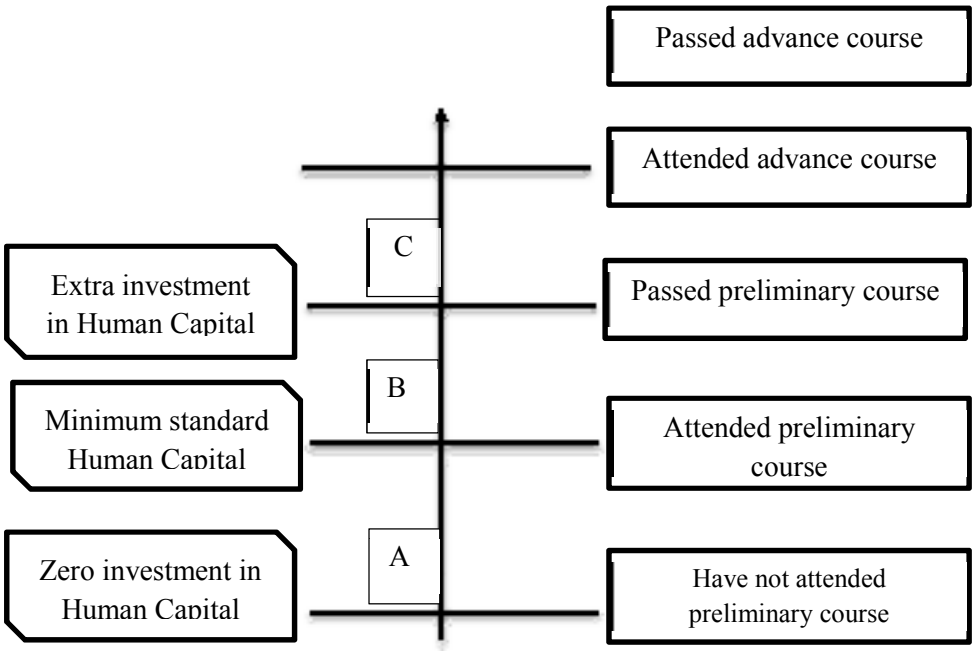

Figure 6.1
Different level of investment in human capital (illustration using formal training in IRBM)

Figure 6.1 shows different level of human capital investment in IRBM using formal training as an example. In this example, the difference in productivity between individual field audit officer who are in Point A and Point B is expected to be significant. Once field officer attained the minimum the threshold at Point B, the impact of any extra investment in human capital would be difficult to measure.

6.4 Implication to the Policy and Management

Following the discussion in the preceding section it is suggested that IRBM selects younger officers to be deployed in the field tax audit of corporate taxpayers in Klang Valley. Once the officers reached certain age i.e. 46 years old, special programme should be introduced to ensure that the auditors remain productive. It is also recommended that special programme is introduced to shorten the initial less

productive period of new corporate field tax auditors. At the same time auditors who have served in corporate field tax unit can remain in the unit for longer period and have their careers confined to the unit.

As far as the research data show, the respondents demonstrated that they are generally religious, highly motivated, satisfied with their job and mostly happy. Any additional programmes that are specifically designed to boost motivation, enhance happiness and elevate religiosity level might not necessarily increase auditors' productivity. Although some evidence pointed towards positive effect of job satisfaction on productivity, it remained doubtful whether programmes that boost job satisfaction could bring huge impact on auditors' productivity.

6.5 Limitations of the Study

The major part of the data for this research is extracted from self-reporting survey questionnaires. As such the accuracy of data acquired from the survey depends largely on the honesty of respondents. Non-truthful answers may lead to wrong conclusion. Each respondent might have different interpretation on certain terms in the survey questionnaire. For examples if the level of religiosity is measured according to the Likert-scale of one to five, the scale level three (or some other scale level) could be interpreted differently among different respondent, because each respondent has his/her own perception and value. As such interpretation of the result must consider this.

The result of this study is not intended to be applied to the IRBM's branches outside of Klang Valley for a reason that the level of economic activities in Malaysia is quite

diverse among regions. The most active region in term of economic activities is Klang Valley. This is reflected in the recent tax collection statistics which show that Klang Valley contributed 48.43% of the total Malaysia's income tax collection in 2015 (i.e. branches under PPN Putrajaya, Duta Branch and CPCB) (IRBM's internal unpublished document, 2015). The balance of the tax collection is attributed to branches outside of Klang Valley. In 2015, they are only nine IRBM branches in Klang Valley (including non-resident branch) compared to 27 branches outside of Klang Valley. It is expected that field audit cases are more complicated in term of business models, networks and size in Klang Valley compare to other regions. Therefore, the productivity of auditors cannot be compared on the same level between auditors in Klang Valley and the regions beyond Klang Valley.

6.6 Future Research Recommendation

This research indirectly enhances and improves the body of knowledge on productivity as well as on the theory as whole. However, there are still rooms for improvement and gap to be covered that could be taking care in future research perhaps. Several suggested future research ideas and paths are listed below:

i- Several similar studies need to be conducted in difference field or scope, *i.e.* other organizations application/context in order to test and re-test the new introduces constructs of productivity among staffs.

ii- The sample size needs to be increased and achieved in collecting data. This is important in order to accomplish a common power level of 0.80 at the desire alpha levels of at least 0.05 for consistency in the results. More stringent significance levels (e.g. 0.01 instead of 0.05) require large samples to achieve the desired power level. Conversely, power could be increased by choosing a

less stringent alpha level (e.g. 0.10 instead of 0.05). However, the significance level of 0.10 is not preferable as it could lead to wrong decision making.

iii- The present study is conducted via questionnaire survey and there are several issues or possible implication of the construct left with room for arguments. Therefore, it is suggested that other form of research, *i.e.* interview, qualitative or case study method of research is conducted in the future. The aim is to possibly solve the arguments which have few possible implications that arose based solely on researcher's mind mapping and experience.

iv- This study could be further testing the factors that could determine the achievement of higher productivity in short period (less than five years of initial exposure on the task) i.e. special intensive training or retention of period of service in each department.

v- Accordingly, research on impact of importance of special programme for senior staffs i.e. 45 years old and above in improving the level of productivity and boost the productivity at the initial period of field audit experience perhaps could be conducted in future. It is believed that the different view or perspective results in different expectation.

vi- Interestingly, focus on training and skill on productivity as this research revealed results of training or course attended does not reflect on productivity which means other elements could be the pushing factor. Thus, the frequency of training, the approach of the trainers or the coverage of the training module could be revisit and improve accordingly.

vii- Relatively to design characteristics, the role of user involvement or participation could be determined as a mediator on the relationship of design

and perceived effectiveness of e-filing adoption. This could be undertaken within the guidelines set by Baron and Kenny (1986) via Sobel Test (Sobel, 1988) in testing the magnitude of the indirect effect. This construct is researchable as they appear to be significant and moderate the direct relationship in this research.

viii- Re-test on the motivation effect on productivity as the results show that the level of motivation is high yet failure to significantly influence the productivity.

6.7 Conclusion

This research has attempted to identify the determinants of productivity of field tax auditors of corporate taxpayers in IRBM branches in Klang Valley. The results indicated that mostly non-supportive of the initial expectation in the hypotheses as only several variables found to be significant. Nonetheless, this research is a success to certain extent, considering it is a pioneering investigation into the productivity of tax audit officers in IRBM. Furthermore, the non-supportive results provide a good basis to relook into the current policies of IRBM on human resources development programmes.

While recommendations for policy consideration are presented in the foregoing section, it is felt that some further researches are necessary to get further insight into the productivity of the corporate field audit officers. For examples, there is a need to further investigate why passing of the IRBM's core courses i.e., preliminary course and advance course did not help in enhancing auditors' productivity. Secondly, why attending more audit courses failed to elevate the auditors' productivity.

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APPENDIX 1

OBS Num.:

NOTA: Soal selidik ini dijalankan untuk **TUJUAN AKADEMIK**. Kerahsiaan jawapan anda adalah dijamin. **SEMUA JAWAPAN YANG DIBERIKAN ADALAH RAHSIA DAN TIDAK AKAN DIGUNAKAN UNTUK APA-APA TUJUAN SEKALIPUN MELAINKAN UNTUK TUJUAN KAJIAN INI SEMATA-MATA.**

KAJIAN KE ATAS FAKTOR-FAKTOR YANG MEMPENGARUHI PRODUKTIVITI PEGAWAI AUDIT LUAR SYARIKAT DI LHDNM

GRED JAWATAN PADA 1 JAN 2016:

_____

GRED JAWATAN PADA 31 DEC 2016:

_____

CAWANGAN TEMPAT BERTUGAS (1/1/16 -31/12/16):

_____

PENYELESAIAN KES AUDIT LUAR SYARIKAT PADA TAHUN 2016:

BILANGAN FAIL SELESAI: _____

BILANGAN TAHUN TAKSIRAN SELESAI:

_____

PENEMUAN AUDIT (RM):_____

CUKAI TAMBAHAN (RM):_____

PENALTI (RM):_____

JUMLAH PENYELESAIAN (RM):_____

PANDUAN MENGISI SOAL SELIDIK

- ✓ Sila tanda (√) jawapan yang paling sesuai dan isikan butiran yang berkenaan, jika bersesuaian. Semua jawapan hendaklan berkaitan dengan tahun 2016 sahaja.

1. SEKSYEN A: BUTIR-BUTIR PERIBADI

a. Umur pada 30/06/2016
- □ 30 dan ke bawah
- □ 31-35
- □ 36-40
- □ 41-45
- □ 46-50
- □ 51-55
- □ 56 dan ke atas

b. Jantina
- □ Lelaki
- □ Perempuan

c. Taraf Perkahwinan pada 30 Jun 2016
- □ Bujang
- □ Berkahwin
- □ Lain-lain

d. Bilangan anak masih dalam tanggungan pada 30 Jun 2016

_____

e. Kelayakan akademik tertinggi pada 30 Jun 2016
- □ Diploma atau setaraf
- □ Sarjana Muda atau setaraf
- □ Sarjana
- □ Doktor Falsafah

f. Bidang utama pengajian

☐ Perakaunan atau pengajian berkaitan perakaunan
☐ Perniagaan, Ekonomi, Pengurusan, atau lain-lain kursus bercorak

perniagaan dan ekonomi
☐ Pengajian bersifat sains atau sains gunaan (contoh: Matematik, Kejuruteraan, Arkitek & Pemakanan)
☐ Sains Sosial, contohnya Sastera, Sosiologi, Psikologi, dan Komunikasi
☐ Lain-lain bidang

g. Kelayakan Ikthisas dan professional pada 30 Jun 2016

 Badan professional perakaunan (contoh: MIA, ACCA, CIMA, MICPA)
Nyatakan:

_____

 Badan professional bukan perakaunan
Nyatakan:

_____

 Tidak Berkenaan

2. PENGALAMAN BEKERJA

a. Pernahkah anda berkhidmat di firma-firma perakaunan atau melakukan kerja-kerja perakaunan sebelum menyertai LHDNM?
 Ya
 Tidak

b. Pengalaman kerja di LHDNM pada 1 Januari 2016
 Kurang dari 5 tahun
 5 hingga 9 tahun 11 bulan
 10 hingga 14 tahun 11 bulan
 15 hingga 19 tahun 11 bulan
 20 tahun ke atas

c. Bilangan tahun pengalaman sebagai pegawai audit luar (semua kategori pembayar cukai) pada 1 Jan 2016

 Kurang dari 2 tahun
 2 hingga 5 tahun 11 bulan
 6 hingga 9 tahun 11 bulan
 10 tahun atau lebih

d. Bilangan tahun pengalaman sebagai pegawai audit luar syarikat pada 1 Januari 2016)

- □ Kurang dari 2 tahun
- □ 2 hingga 5 tahun 11 bulan
- □ 6 hingga 9 tahun 11 bulan
- □ 10 tahun atau lebih

3. KURSUS/LATIHAN DALAM PERKHIDMATAN SEHINGGA 31/12/2016

a. Telah lulus kursus permulaan Pegawai Eksekutif Penaksiran, Gred 41?
- □ Ya
- □ Tidak

b. Telah lulus kursus lanjutan Pegawai Eksekutif Penaksiran Gred 41?
- □ Ya
- □ Tidak

c. Bilangan kursus berkaitan audit luar yang pernah di hadiri sehingga 31/12/2016?
- □ Tiada
- □ 1 – 2 kali
- □ 3 – 4 kali
- □ 5 kali dan lebih

d. Pendapat anda tentang kekerapan latihan/bimbingan berkaitan audit luar oleh penyelia dan juga rakan ditempat kerja disepanjang perkhidmatan anda di Unit Audit Luar Syarikat sehingga 31/12/2016?
- □ Tiada
- □ Jarang (1 kali atau kurang dalam sebulan)
- □ Kerap (2-3 kali sebulan)
- □ Sangat kerap (4 kali atau lebih sebulan)

4. PERSEPSI BERKENAAN DIRI SENDIRI SEPANJANG TAHUN 2016

KEAGAMAAN

a. Saya mendalami ilmu agama melalui siaran TV, radio, internet, akhbar, media sosial dan buku-buku agama.

Tidak Pernah				**Sangat Kerap**
1	**2**	**3**	**4**	**5**

b. Saya mempercayai kewujudan tuhan dan kuasa ghaib

Sangat Tidak Bersetuju				Sangat Bersetuju
1	2	3	4	5

c. Saya menyertai aktiviti-aktiviti keagamaan dalam komuniti di sekeliling saya

Tidak Pernah				Sangat Kerap
1	2	3	4	5

d. Saya berdoa secara spontan apabila berdepan dengan situasi harian

Tidak Pernah				Sangat Kerap
1	2	3	4	5

e. Berapa kerap anda mengalami situasi di mana anda berasa bahawa tuhan campurtangan dalam kehidupan anda.

Tidak Pernah				Setiap Kali
1	2	3	4	5

MOTIVASI KERJA

f. Matlamat saya ialah mencapai sasaran kerja tahunan seawal yang mungkin dan setinggi yang boleh

Sangat Tidak Bersetuju				Sangat Bersetuju
1	2	3	4	5

g. Saya mempunyai minat yang tinggi dalam menjalankan kerja-kerja audit luar

Sangat Tidak Bersetuju				Sangat Bersetuju
1	2	3	4	5

h. Dalam keadaan sibuk dengan pelbagai tugasan di pejabat saya memberi keutamaan menyelesaikan kes-kes audit terlebih dahulu

Sangat Tidak Bersetuju				Sangat Bersetuju
1	2	3	4	5

i. Saya bekerja keras untuk menyelesaikan kerja-kerja audit luar supaya saya tidak ketinggalan oleh rakan-rakan lain

Sangat Tidak Bersetuju				Sangat Bersetuju
1	2	3	4	5

j. Saya merasa bersalah untuk melibatkan diri dalam aktiviti-aktiviti bukan teras jika sasaran kerja tahunan belum tercapai

Sangat Tidak Bersetuju				Sangat Bersetuju
1	2	3	4	5

KEPUASAN BEKERJA

k. Saya merasa bahawa saya dilayan secara adil oleh penyelia saya dan pihak pengurusan.

Sangat Tidak Bersetuju				Sangat Bersetuju
1	2	3	4	5

l. Saya mempunyai keperluan (peralatan fizikal) di pejabat yang mencukupi untuk membolehkan saya menjalankan tugas audit dengan jayanya

Sangat Tidak Bersetuju				Sangat Bersetuju
1	2	3	4	5

m. Penyelia saya dan pihak pengurusan sentiasa bersedia mendengar keluhan saya dan juga cadangan-cadangan saya

Sangat Tidak Bersetuju				Sangat Bersetuju
1	2	3	4	5

n. Rakan-rakan sekerja saya sentiasa bersedia untuk membantu dalam menyelesaikan kes-kes audit saya

Sangat Tidak Bersetuju				Sangat Bersetuju
1	2	3	4	5

o. Saya mempunyai peluang yang cerah untuk melangkah lebih jauh dalam kerjaya saya di LHDNM

Sangat Tidak Bersetuju				Sangat Bersetuju
1	2	3	4	5

p. Saya boleh menggunakan sepenuhya keupayaan saya dalam menyelesaikan kes-kes audit di bawah kendalian saya

Sangat Tidak Bersetuju				Sangat Bersetuju
1	2	3	4	5

KEGEMBIRAAN DENGAN KEHIDUPAN

q. Hidup saya hampir sama seperti kehidupan yang saya inginkan

Sangat Tidak Bersetuju				Sangat Bersetuju
1	2	3	4	5

r. Keadaan hidup saya adalah sangat memuaskan

Sangat Tidak Bersetuju				Sangat Bersetuju
1	2	3	4	5

s. Saya berpuashati dengan kehidupan saya

Sangat Tidak Bersetuju				Sangat Bersetuju
1	2	3	4	5

t. Setakat ini saya telah memperolehi perkara-perkara penting yang saya inginkan

Sangat Tidak Bersetuju				Sangat Bersetuju
1	2	3	4	5

u. Jika saya dapat memutarkan masa, saya tidak akan mengubah apa-apa berkenaan hidup saya

Sangat Tidak Bersetuju				Sangat Bersetuju
1	2	3	4	5

TERIMA KASIH DI ATAS KERJASAMA ANDA.

SEMUA JAWAPAN YANG DIBERIKAN ADALAH RAHSIA DAN TIDAK AKAN DIGUNAKAN UNTUK APA-APA TUJUAN SEKALIPUN MELAINKAN UNTUK TUJUAN KAJIAN INI SEMATA-MATA

APPENDIX 2

PILOT TEST RESULTS:

Religiousity (5 items):

Correlation Matrix

		Religious1	Religious2	Religious3	Religious4	Religious5
Correlation	Religious1	1.000	.126	.311	.295	-.012
	Religious2	.126	1.000	.168	.307	.089
	Religious3	.311	.168	1.000	.278	.377
	Religious4	.295	.307	.278	1.000	.216
	Religious5	-.012	.089	.377	.216	1.000

KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.585
Bartlett's Test of Sphericity	Approx. Chi-Square	21.541
	Df	10
	Sig.	.018

Anti-image Matrices

		Religious1	Religious2	Religious3	Religious4	Religious5
Anti-image Covariance	Religious1	.828	-.014	-.229	-.193	.149
	Religious2	-.014	.898	-.064	-.221	.003
	Religious3	-.229	-.064	.742	-.078	-.288
	Religious4	-.193	-.221	-.078	.792	-.129
	Religious5	.149	.003	-.288	-.129	.817
Anti-image Correlation	Religious1	.532[a]	-.016	-.293	-.238	.181
	Religious2	-.016	.661[a]	-.079	-.262	.004
	Religious3	-.293	-.079	.590[a]	-.101	-.370
	Religious4	-.238	-.262	-.101	.654[a]	-.160
	Religious5	.181	.004	-.370	-.160	.502[a]

a. Measures of Sampling Adequacy(MSA)

Communalities

	Initial	Extraction
Religious1	1.000	.573
Religious2	1.000	.363
Religious3	1.000	.611
Religious4	1.000	.553
Religious5	1.000	.842

Extraction Method: Principal Component Analysis.

Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Var.	Cumula-tive %	Total	% of Variance	Cumula-tive %	Total	% of Variance	Cumula-tive %
1	1.894	37.880	37.880	1.894	37.880	37.880	1.552	31.043	31.043
2	1.048	20.964	58.845	1.048	20.964	58.845	1.390	27.802	58.845
3	.917	18.338	77.183						
4	.654	13.079	90.262						
5	.487	9.738	100.000						

Extraction Method: Principal Component Analysis.

Component Matrix[a]

	Component	
	1	2
Religious3	.733	-.273
Religious4	.714	.206
Religious1	.555	.515
Religious2	.513	.316
Religious5	.525	-.752

Extraction Method: Principal Component Analysis.

a. 2 components extracted.

Rotated Component Matrix[a]

	Component	
	1	2
Religious1	.756	
Religious4	.683	.295
Religious2	.597	
Religious5		.915
Religious3	.392	.677

Extraction Method: Principal Component Analysis.

Rotation Method: Varimax with Kaiser Normalization.[a]

a. Rotation converged in 3 iterations.

Component Transformation Matrix

Component	1	2
1	.772	.636
2	.636	-.772

Extraction Method: Principal Component Analysis.

Rotation Method: Varimax with Kaiser Normalization.

RELIABILITY

Case Processing Summary

		N	%
Cases	Valid	43	100.0
	Excluded[a]	0	.0
	Total	43	100.0

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	N of Items
.508	5

Religious (4 items):

Correlation Matrix

		Religious1	Religious3	Religious4	Religious2
Correlation	Religious1	1.000	.311	.295	.126
	Religious3	.311	1.000	.278	.168
	Religious4	.295	.278	1.000	.307
	Religious2	.126	.168	.307	1.000

KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.649
Bartlett's Test of Sphericity	Approx. Chi-Square	13.657
	Df	6
	Sig.	.034

Anti-image Matrices

		Religious1	Religious3	Religious4	Religious2
Anti-image Covariance	Religious1	.856	-.212	-.180	-.015
	Religious3	-.212	.859	-.146	-.073
	Religious4	-.180	-.146	.813	-.226
	Religious2	-.015	-.073	-.226	.898
Anti-image Correlation	Religious1	.649[a]	-.247	-.215	-.017
	Religious3	-.247	.672[a]	-.175	-.083
	Religious4	-.215	-.175	.637[a]	-.265
	Religious2	-.017	-.083	-.265	.641[a]

a. Measures of Sampling Adequacy(MSA)

Communalities

	Initial	Extraction
Religious1	1.000	.438
Religious3	1.000	.452
Religious4	1.000	.545
Religious2	1.000	.317

Extraction Method: Principal Component Analysis.

Total Variance Explained

	Initial Eigenvalues			Extraction Sums of Squared Loadings		
Component	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	1.751	43.783	43.783	1.751	43.783	43.783
2	.919	22.967	66.750			
3	.698	17.452	84.202			
4	.632	15.798	100.000			

Extraction Method: Principal Component Analysis.

Component Matrix[a]

	Component
	1
Religious4	.738
Religious3	.672
Religious1	.662
Religious2	.563

Extraction Method: Principal Component Analysis.

a. 1 components extracted.

Rotated Component Matrix[a]

a. Only one component was extracted. The solution cannot be rotated.

Reliability:

Case Processing Summary

		N	%
Cases	Valid	43	100.0
	Excluded[a]	0	.0
	Total	43	100.0

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	N of Items
.561	4

Motivation (5 items):

Correlation Matrix

		Motivation1	Motivation2	Motivation3	Motivation4	Motivation5
Correlation	Motivation1	1.000	.202	.363	.372	.191
	Motivation2	.202	1.000	.338	.290	.187
	Motivation3	.363	.338	1.000	.501	-.005
	Motivation4	.372	.290	.501	1.000	-.192
	Motivation5	.191	.187	-.005	-.192	1.000

KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.608
Bartlett's Test of Sphericity	Approx. Chi-Square	32.261
	Df	10
	Sig.	.000

Anti-image Matrices

		Motivation1	Motivation2	Motivation3	Motivation4	Motivation5
Anti-image Covariance	Motivation1	.759	.007	-.140	-.200	-.212
	Motivation2	.007	.816	-.157	-.139	-.193
	Motivation3	-.140	-.157	.680	-.235	.004
	Motivation4	-.200	-.139	-.235	.627	.227
	Motivation5	-.212	-.193	.004	.227	.832
Anti-image Correlation	Motivation1	.641[a]	.008	-.195	-.291	-.267
	Motivation2	.008	.666[a]	-.211	-.195	-.235
	Motivation3	-.195	-.211	.700[a]	-.360	.005
	Motivation4	-.291	-.195	-.360	.592[a]	.314
	Motivation5	-.267	-.235	.005	.314	.325[a]

a. Measures of Sampling Adequacy(MSA)

Communalities

	Initial	Extraction
Motivation1	1.000	.505
Motivation2	1.000	.464
Motivation3	1.000	.645
Motivation4	1.000	.751
Motivation5	1.000	.877

Extraction Method: Principal Component Analysis.

Total Variance Explained

	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
Component	Total	% of Var.	Cumula-tive %	Total	% of Var.	Cumula-tive %	Total	% of Variance	Cumulative %
1	2.054	41.070	41.070	2.054	41.070	41.070	2.043	40.864	40.864
2	1.189	23.789	64.860	1.189	23.789	64.860	1.200	23.995	64.860
3	.800	15.993	80.853						
4	.533	10.652	91.505						
5	.425	8.495	100.000						

Extraction Method: Principal Component Analysis.

Component Matrix[a]

	Component	
	1	2
Motivation3	.792	-.132
Motivation4	.767	-.403
Motivation1	.676	.220
Motivation2	.610	.302
Motivation5		.933

Extraction Method: Principal Component Analysis.

a. 2 components extracted.

Rotated Component Matrix[a]

	Component	
	1	2
Motivation4	.807	-.317
Motivation3	.802	
Motivation1	.648	.292
Motivation2	.574	.367
Motivation5		.937

Extraction Method: Principal Component Analysis.

Rotation Method: Varimax with Kaiser Normalization.[a]

a. Rotation converged in 3 iterations.

Component Transformation Matrix

Component	1	2
1	.994	.109
2	-.109	.994

Extraction Method: Principal Component Analysis.

Rotation Method: Varimax with Kaiser Normalization.

Reliability:

Case Processing Summary

		N	%
Cases	Valid	43	100.0
	Excluded[a]	0	.0
	Total	43	100.0

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	N of Items
.583	5

Motivation (4 items):

Correlation Matrix

		Motivation1	Motivation2	Motivation3	Motivation4
Correlation	Motivation1	1.000	.202	.363	.372
	Motivation2	.202	1.000	.338	.290
	Motivation3	.363	.338	1.000	.501
	Motivation4	.372	.290	.501	1.000

KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.714
Bartlett's Test of Sphericity	Approx. Chi-Square	25.229
	Df	6
	Sig.	.000

Anti-image Matrices

		Motivation1	Motivation2	Motivation3	Motivation4
Anti-image Covariance	Motivation1	.818	-.049	-.150	-.170
	Motivation2	-.049	.863	-.165	-.101
	Motivation3	-.150	-.165	.680	-.262
	Motivation4	-.170	-.101	-.262	.696
Anti-image Correlation	Motivation1	.766[a]	-.058	-.201	-.226
	Motivation2	-.058	.781[a]	-.216	-.131
	Motivation3	-.201	-.216	.681[a]	-.381
	Motivation4	-.226	-.131	-.381	.689[a]

a. Measures of Sampling Adequacy(MSA)

Communalities

	Initial	Extraction
Motivation1	1.000	.445
Motivation2	1.000	.360
Motivation3	1.000	.634
Motivation4	1.000	.611

Extraction Method: Principal Component Analysis.

Total Variance Explained

	Initial Eigenvalues			Extraction Sums of Squared Loadings		
Component	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	2.050	51.248	51.248	2.050	51.248	51.248
2	.807	20.180	71.428			
3	.647	16.182	87.610			
4	.496	12.390	100.000			

Extraction Method: Principal Component Analysis.

Component Matrix[a]

	Component 1
Motivation3	.796
Motivation4	.781
Motivation1	.667
Motivation2	.600

Extraction Method: Principal Component Analysis.

a. 1 components extracted.

Rotated Component Matrix[a]

a. Only one component was extracted. The solution cannot be rotated.

Reliability:

Case Processing Summary

		N	%
Cases	Valid	43	100.0
	Excluded[a]	0	.0
	Total	43	100.0

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	N of Items
.662	4

Satisfaction (6 items):

Correlation Matrix

		Satis-faction1	Satis-faction2	Satis-faction3	Satis-faction4	Satis-faction5	Satis-faction6
Correlation	Satisfaction1	1.000	-.051	.713	.582	.399	.531
	Satisfaction2	-.051	1.000	-.039	-.026	.196	.271
	Satisfaction3	.713	-.039	1.000	.608	.345	.420
	Satisfaction4	.582	-.026	.608	1.000	.235	.428
	Satisfaction5	.399	.196	.345	.235	1.000	.455
	Satisfaction6	.531	.271	.420	.428	.455	1.000

KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.767
Bartlett's Test of Sphericity	Approx. Chi-Square	80.418
	Df	15
	Sig.	.000

Anti-image Matrices

		Satis-faction1	Satis-faction2	Satis-faction3	Satis-faction4	Satis-faction5	Satis-faction6
Anti-image Covariance	Satisfaction1	.391	.099	-.201	-.093	-.081	-.140
	Satisfaction2	.099	.853	.016	.029	-.111	-.213
	Satisfaction3	-.201	.016	.431	-.166	-.057	.005
	Satisfaction4	-.093	.029	-.166	.566	.049	-.102
	Satisfaction5	-.081	-.111	-.057	.049	.734	-.165
	Satisfaction6	-.140	-.213	.005	-.102	-.165	.569
Anti-image Correlation	Satisfaction1	.754[a]	.172	-.491	-.197	-.151	-.296
	Satisfaction2	.172	.446[a]	.026	.042	-.141	-.305
	Satisfaction3	-.491	.026	.763[a]	-.335	-.102	.010
	Satisfaction4	-.197	.042	-.335	.832[a]	.076	-.180
	Satisfaction5	-.151	-.141	-.102	.076	.823[a]	-.256
	Satisfaction6	-.296	-.305	.010	-.180	-.256	.768[a]

a. Measures of Sampling Adequacy(MSA)

Communalities

	Initial	Extraction
Satisfaction1	1.000	.783
Satisfaction2	1.000	.776
Satisfaction3	1.000	.752
Satisfaction4	1.000	.646
Satisfaction5	1.000	.525
Satisfaction6	1.000	.675

Extraction Method: Principal Component Analysis.

Total Variance Explained

	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
Component	Total	% of Var.	Cumula-tive %	Total	% of Var.	Cumula-tive %	Total	% of Variance	Cumulative %
1	2.928	48.799	48.799	2.928	48.799	48.799	2.684	44.727	44.727
2	1.230	20.492	69.291	1.230	20.492	69.291	1.474	24.564	69.291
3	.690	11.506	80.797						
4	.477	7.957	88.754						
5	.413	6.879	95.632						
6	.262	4.368	100.000						

Extraction Method: Principal Component Analysis.

Component Matrix[a]

	Component	
	1	2
Satisfaction1	.861	-.207
Satisfaction3	.825	-.267
Satisfaction4	.757	-.270
Satisfaction6	.744	.349
Satisfaction5	.605	.398
Satisfaction2	.116	.873

Extraction Method: Principal Component Analysis.

a. 2 components extracted.

Rotated Component Matrix[a]

	Component	
	1	2
Satisfaction1	.875	.135
Satisfaction3	.865	
Satisfaction4	.803	
Satisfaction2	-.223	.852
Satisfaction6	.556	.605
Satisfaction5	.409	.598

Extraction Method: Principal Component Analysis.

Rotation Method: Varimax with Kaiser Normalization.[a]

a. Rotation converged in 3 iterations.

Component Transformation Matrix

Component	1	2
1	.925	.379
2	-.379	.925

Extraction Method: Principal Component Analysis.

Rotation Method: Varimax with Kaiser Normalization.

Reliability:

Case Processing Summary

		N	%
Cases	Valid	43	100.0
	Excluded[a]	0	.0
	Total	43	100.0

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	N of Items
.735	6

Satisfaction (5 items):

Correlation Matrix

		Satisfaction1	Satisfaction3	Satisfaction4	Satisfaction5	Satisfaction6
Correlation	Satisfaction1	1.000	.713	.582	.399	.531
	Satisfaction3	.713	1.000	.608	.345	.420
	Satisfaction4	.582	.608	1.000	.235	.428
	Satisfaction5	.399	.345	.235	1.000	.455
	Satisfaction6	.531	.420	.428	.455	1.000

KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.789
Bartlett's Test of Sphericity	Approx. Chi-Square	74.844
	Df	10
	Sig.	.000

Anti-image Matrices

		Satisfaction1	Satisfaction3	Satisfaction4	Satisfaction5	Satisfaction6
Anti-image Covariance	Satisfaction1	.403	-.210	-.099	-.071	-.131
	Satisfaction3	-.210	.431	-.167	-.057	.010
	Satisfaction4	-.099	-.167	.567	.054	-.105
	Satisfaction5	-.071	-.057	.054	.749	-.217
	Satisfaction6	-.131	.010	-.105	-.217	.627
Anti-image Correlation	Satisfaction1	.772[a]	-.503	-.208	-.130	-.260
	Satisfaction3	-.503	.757[a]	-.337	-.100	.019
	Satisfaction4	-.208	-.337	.830[a]	.083	-.176
	Satisfaction5	-.130	-.100	.083	.801[a]	-.317
	Satisfaction6	-.260	.019	-.176	-.317	.810[a]

a. Measures of Sampling Adequacy(MSA)

Communalities

	Initial	Extraction
Satisfaction1	1.000	.752
Satisfaction3	1.000	.691
Satisfaction4	1.000	.582
Satisfaction5	1.000	.356
Satisfaction6	1.000	.538

Extraction Method: Principal Component Analysis.

Total Variance Explained

	Initial Eigenvalues			Extraction Sums of Squared Loadings		
Component	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	2.919	58.384	58.384	2.919	58.384	58.384
2	.863	17.253	75.637			
3	.533	10.659	86.296			
4	.416	8.315	94.611			
5	.269	5.389	100.000			

Extraction Method: Principal Component Analysis.

Component Matrix[a]

	Component 1
Satisfaction1	.867
Satisfaction3	.832
Satisfaction4	.763
Satisfaction6	.733
Satisfaction5	.597

Extraction Method: Principal Component Analysis.

a. 1 components extracted.

Rotated Component Matrix[a]

a. Only one component was extracted. The solution cannot be rotated.

Reliability:

Case Processing Summary

		N	%
Cases	Valid	43	100.0
	Excluded[a]	0	.0
	Total	43	100.0

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	N of Items
.779	5

Happiness (5 items):

Correlation Matrix

		Happiness1	Happiness2	Happiness3	Happiness4	Happiness5
Correlation	Happiness1	1.000	.721	.763	.609	.345
	Happiness2	.721	1.000	.928	.772	.401
	Happiness3	.763	.928	1.000	.775	.350
	Happiness4	.609	.772	.775	1.000	.316
	Happiness5	.345	.401	.350	.316	1.000

KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.825
Bartlett's Test of Sphericity	Approx. Chi-Square	158.552
	Df	10
	Sig.	.000

Anti-image Matrices

		Happiness1	Happiness2	Happiness3	Happiness4	Happiness5
Anti-image Covariance	Happiness1	.410	-.005	-.076	-.011	-.069
	Happiness2	-.005	.126	-.090	-.046	-.066
	Happiness3	-.076	-.090	.113	-.046	.033
	Happiness4	-.011	-.046	-.046	.379	-.014
	Happiness5	-.069	-.066	.033	-.014	.823
Anti-image Correlation	Happiness1	.919[a]	-.022	-.354	-.028	-.119
	Happiness2	-.022	.765[a]	-.754	-.211	-.203
	Happiness3	-.354	-.754	.741[a]	-.224	.107
	Happiness4	-.028	-.211	-.224	.945[a]	-.025
	Happiness5	-.119	-.203	.107	-.025	.881[a]

a. Measures of Sampling Adequacy(MSA)

Communalities

	Initial	Extraction
Happiness1	1.000	.710
Happiness2	1.000	.891
Happiness3	1.000	.897
Happiness4	1.000	.735
Happiness5	1.000	.260

Extraction Method: Principal Component Analysis.

Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	3.493	69.867	69.867	3.493	69.867	69.867
2	.803	16.061	85.928			
3	.394	7.878	93.806			
4	.242	4.845	98.651			
5	.067	1.349	100.000			

Extraction Method: Principal Component Analysis.

Component Matrix[a]

	Component
	1
Happiness3	.947
Happiness2	.944
Happiness4	.857
Happiness1	.843
Happiness5	.510

Extraction Method: Principal Component Analysis.

a. 1 components extracted.

Rotated Component Matrix[a]

a. Only one component was extracted. The solution cannot be rotated.

Reliability:

Case Processing Summary

		N	%
Cases	Valid	43	100.0
	Excluded[a]	0	.0
	Total	43	100.0

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	N of Items
.861	5

APPENDIX 3

Factor Analysis:

Religiosity

Correlation Matrix

		Religiosity1	Religiosity2	Religiosity3	Religiosity4	Religiosity5
Correlation	Religiosity1	1.000	.293	.438	.584	.273
	Religiosity2	.293	1.000	.158	.349	.359
	Religiosity3	.438	.158	1.000	.411	.172
	Religiosity4	.584	.349	.411	1.000	.412
	Religiosity5	.273	.359	.172	.412	1.000

KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.742
Bartlett's Test of Sphericity	Approx. Chi-Square	185.001
	Df	10
	Sig.	.000

Anti-image Matrices

		Religiosity1	Religiosity2	Religiosity3	Religiosity4	Religiosity5
Anti-image Covariance	Religiosity1	.603	-.077	-.182	-.248	-.010
	Religiosity2	-.077	.812	.010	-.097	-.198
	Religiosity3	-.182	.010	.771	-.134	.005
	Religiosity4	-.248	-.097	-.134	.553	-.177
	Religiosity5	-.010	-.198	.005	-.177	.777
Anti-image Correlation	Religiosity1	.721[a]	-.110	-.267	-.429	-.015
	Religiosity2	-.110	.792[a]	.013	-.145	-.249
	Religiosity3	-.267	.013	.785[a]	-.205	.006
	Religiosity4	-.429	-.145	-.205	.715[a]	-.270
	Religiosity5	-.015	-.249	.006	-.270	.749[a]

a. Measures of Sampling Adequacy(MSA)

Communalities

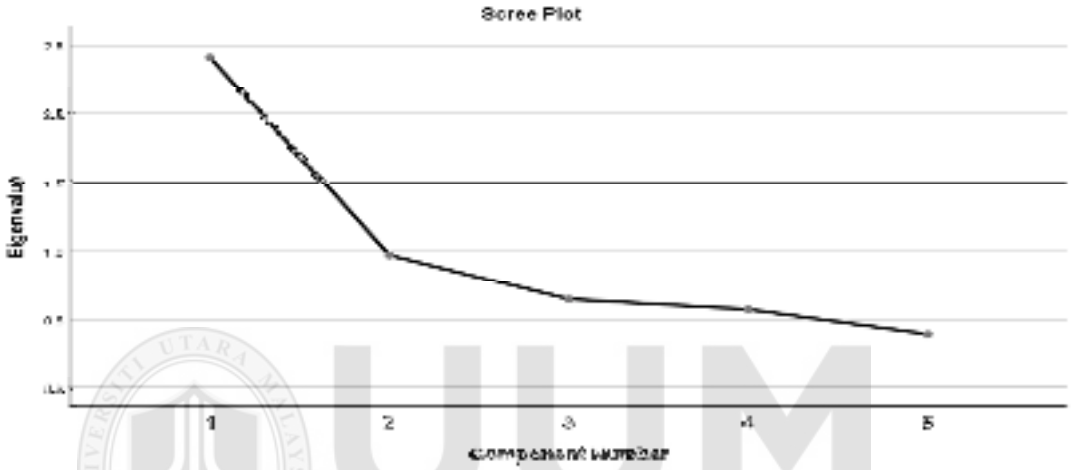
	Initial	Extraction
Religiosity1	1.000	.605
Religiosity2	1.000	.351
Religiosity3	1.000	.389
Religiosity4	1.000	.687
Religiosity5	1.000	.382

Extraction Method: Principal Component Analysis.

Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	2.414	48.274	48.274	2.414	48.274	48.274
2	.973	19.456	67.730			
3	.648	12.965	80.694			
4	.573	11.457	92.152			
5	.392	7.848	100.000			

Extraction Method: Principal Component Analysis.



Component Matrix[a]

	Component
	1
Religiosity4	.829
Religiosity1	.778
Religiosity3	.623
Religiosity5	.618
Religiosity2	.593

Extraction Method: Principal Component Analysis.

a. 1 components extracted.

Rotated Component Matrix[a]

a. Only one component was extracted. The solution cannot be rotated.

Motivation

Correlation Matrix

		Motivation1	Motivation2	Motivation3	Motivation4	Motivation5
Correlation	Motivation1	1.000	.519	.630	.448	.348
	Motivation2	.519	1.000	.615	.446	.341
	Motivation3	.630	.615	1.000	.576	.430
	Motivation4	.448	.446	.576	1.000	.348
	Motivation5	.348	.341	.430	.348	1.000

KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.831
Bartlett's Test of Sphericity	Approx. Chi-Square	293.356
	Df	10
	Sig.	.000

Anti-image Matrices

		Motivation1	Motivation2	Motivation3	Motivation4	Motivation5
Anti-image Covariance	Motivation1	.566	-.110	-.180	-.058	-.051
	Motivation2	-.110	.582	-.169	-.066	-.049
	Motivation3	-.180	-.169	.416	-.165	-.103
	Motivation4	-.058	-.066	-.165	.638	-.081
	Motivation5	-.051	-.049	-.103	-.081	.789
Anti-image Correlation	Motivation1	.839[a]	-.192	-.371	-.097	-.077
	Motivation2	-.192	.849[a]	-.343	-.108	-.073
	Motivation3	-.371	-.343	.768[a]	-.321	-.180
	Motivation4	-.097	-.108	-.321	.862[a]	-.115
	Motivation5	-.077	-.073	-.180	-.115	.906[a]

a. Measures of Sampling Adequacy(MSA)

Communalities

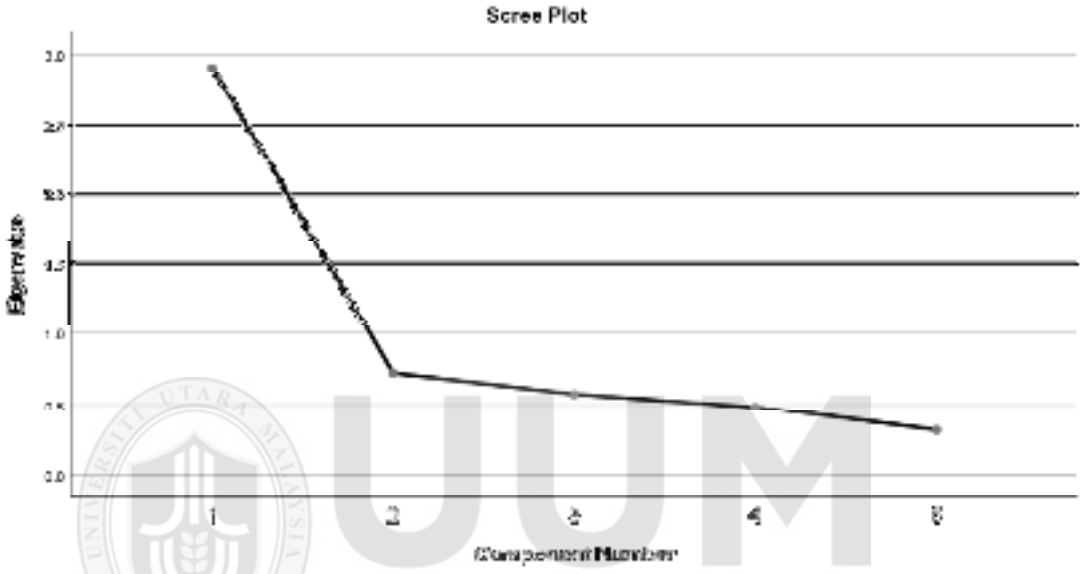
	Initial	Extraction
Motivation1	1.000	.616
Motivation2	1.000	.605
Motivation3	1.000	.761
Motivation4	1.000	.550
Motivation5	1.000	.377

Extraction Method: Principal Component Analysis.

Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	2.908	58.164	58.164	2.908	58.164	58.164
2	.721	14.425	72.588			
3	.574	11.483	84.071			
4	.482	9.635	93.706			
5	.315	6.294	100.000			

Extraction Method: Principal Component Analysis.



Component Matrix[a]

	Component
	1
Motivation3	.872
Motivation1	.785
Motivation2	.778
Motivation4	.742
Motivation5	.614

Extraction Method: Principal Component Analysis.

a. 1 components extracted.

Rotated Component Matrix[a]

a. Only one component was extracted. The solution cannot be rotated.

Job Satisfaction

Correlation Matrix

		Satisfaction1	Satisfaction2	Satisfaction3	Satisfaction4	Satisfaction5	Satisfaction6
Correlation	Satisfaction1	1.000	.455	.791	.302	.435	.229
	Satisfaction2	.455	1.000	.512	.340	.248	.369
	Satisfaction3	.791	.512	1.000	.461	.453	.371
	Satisfaction4	.302	.340	.461	1.000	.375	.357
	Satisfaction5	.435	.248	.453	.375	1.000	.357
	Satisfaction6	.229	.369	.371	.357	.357	1.000

KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.749
Bartlett's Test of Sphericity	Approx. Chi-Square	375.339
	Df	15
	Sig.	.000

Anti-image Matrices

		Satisfaction1	Satisfaction2	Satisfaction3	Satisfaction4	Satisfaction5	Satisfaction6
Anti-image Covariance	Satisfaction1	.345	-.071	-.223	.069	-.098	.078
	Satisfaction2	-.071	.679	-.074	-.080	.052	-.158
	Satisfaction3	-.223	-.074	.294	-.124	-.029	-.078
	Satisfaction4	.069	-.080	-.124	.705	-.137	-.098
	Satisfaction5	-.098	.052	-.029	-.137	.702	-.158
	Satisfaction6	.078	-.158	-.078	-.098	-.158	.738
Anti-image Correlation	Satisfaction1	.662[a]	-.146	-.700	.141	-.199	.154
	Satisfaction2	-.146	.869[a]	-.166	-.115	.075	-.223
	Satisfaction3	-.700	-.166	.698[a]	-.273	-.065	-.167
	Satisfaction4	.141	-.115	-.273	.808[a]	-.194	-.136
	Satisfaction5	-.199	.075	-.065	-.194	.843[a]	-.219
	Satisfaction6	.154	-.223	-.167	-.136	-.219	.776[a]

a. Measures of Sampling Adequacy(MSA)

Communalities

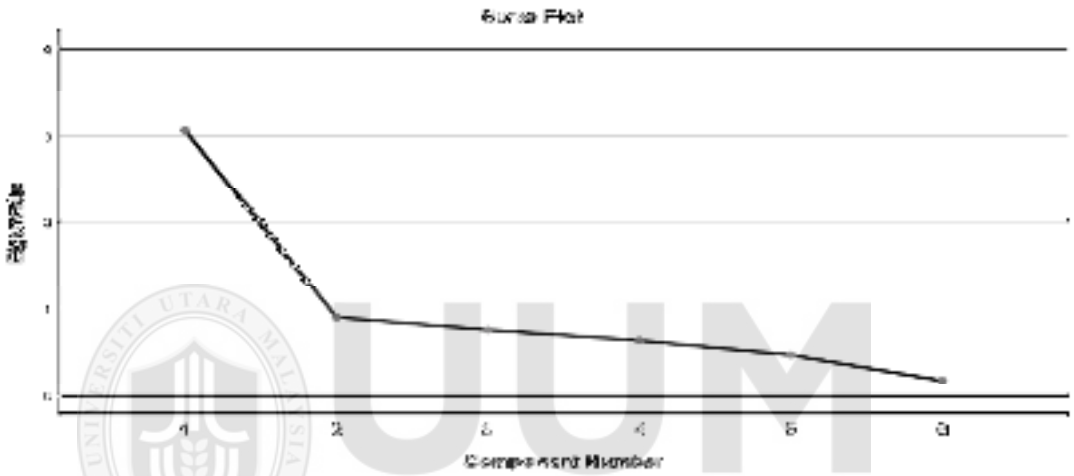
	Initial	Extraction
Satisfaction1	1.000	.620
Satisfaction2	1.000	.468
Satisfaction3	1.000	.759
Satisfaction4	1.000	.419
Satisfaction5	1.000	.438
Satisfaction6	1.000	.353

Extraction Method: Principal Component Analysis.

Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	3.058	50.960	50.960	3.058	50.960	50.960
2	.896	14.928	65.888			
3	.755	12.580	78.469			
4	.636	10.605	89.074			
5	.474	7.908	96.981			
6	.181	3.019	100.000			

Extraction Method: Principal Component Analysis.



Component Matrix[a]

	Component
	1
Satisfaction3	.871
Satisfaction1	.787
Satisfaction2	.684
Satisfaction5	.662
Satisfaction4	.647
Satisfaction6	.594

Extraction Method: Principal Component Analysis.

a. 1 components extracted.

Rotated Component Matrix[a]

a. Only one component was extracted. The solution cannot be rotated.

Happiness

Correlation Matrix

		Happiness1	Happiness2	Happiness3	Happiness4	Happiness5
Correlation	Happiness1	1.000	.278	.236	.197	.066
	Happiness2	.278	1.000	.881	.697	.513
	Happiness3	.236	.881	1.000	.632	.465
	Happiness4	.197	.697	.632	1.000	.434
	Happiness5	.066	.513	.465	.434	1.000

KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.759
Bartlett's Test of Sphericity	Approx. Chi-Square	444.567
	Df	10
	Sig.	.000

Anti-image Matrices

		Happiness1	Happiness2	Happiness3	Happiness4	Happiness5
Anti-image Covariance	Happiness1	.914	-.062	.008	-.011	.076
	Happiness2	-.062	.180	-.154	-.103	-.071
	Happiness3	.008	-.154	.223	-.017	-.009
	Happiness4	-.011	-.103	-.017	.505	-.075
	Happiness5	.076	-.071	-.009	-.075	.718
Anti-image Correlation	Happiness1	.843[a]	-.154	.017	-.017	.094
	Happiness2	-.154	.676[a]	-.767	-.343	-.199
	Happiness3	.017	-.767	.710[a]	-.049	-.023
	Happiness4	-.017	-.343	-.049	.891[a]	-.124
	Happiness5	.094	-.199	-.023	-.124	.913[a]

a. Measures of Sampling Adequacy(MSA)

Communalities

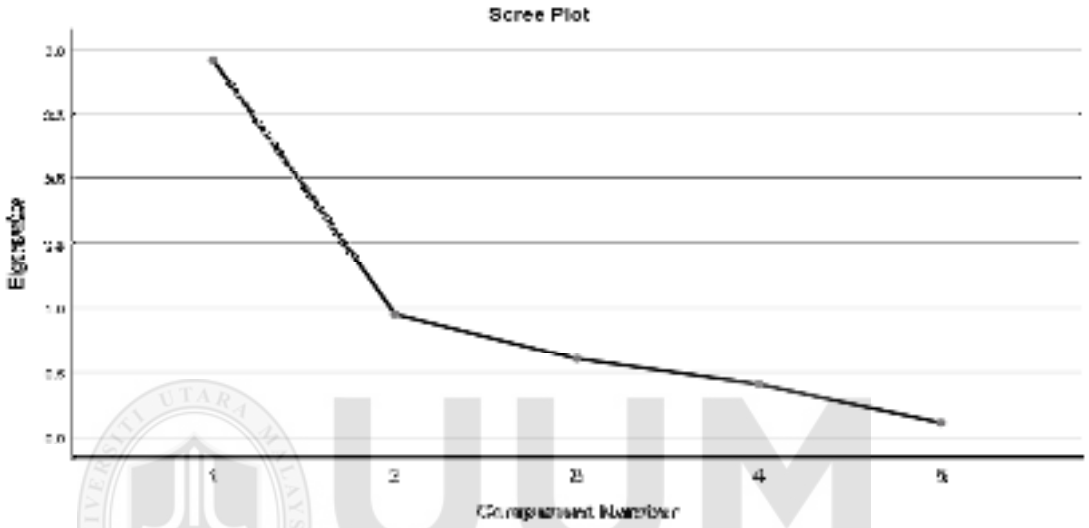
	Initial	Extraction
Happiness1	1.000	.124
Happiness2	1.000	.877
Happiness3	1.000	.812
Happiness4	1.000	.673
Happiness5	1.000	.441

Extraction Method: Principal Component Analysis.

Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	2.926	58.528	58.528	2.926	58.528	58.528
2	.951	19.029	77.556			
3	.605	12.095	89.651			
4	.406	8.128	97.779			
5	.111	2.221	100.000			

Extraction Method: Principal Component Analysis.



Component Matrix[a]

	Component
	1
Happiness2	.937
Happiness3	.901
Happiness4	.820
Happiness5	.664
Happiness1	.352

Extraction Method: Principal Component Analysis.

a. 1 components extracted.

Rotated Component Matrix[a]

a. Only one component was extracted. The solution cannot be rotated.

Reliability
Scale: Religiosity

Case Processing Summary

		N	%
Cases	Valid	176	100.0
	Excluded[a]	0	.0
	Total	176	100.0

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.718	.725	5

Item Statistics

	Mean	Std. Deviation	N
Religiosity1	3.88	.823	176
Religiosity2	4.89	.464	176
Religiosity3	3.61	.868	176
Religiosity4	4.33	.796	176
Religiosity5	4.48	.841	176

Inter-Item Covariance Matrix

	Religiosity1	Religiosity2	Religiosity3	Religiosity4	Religiosity5
Religiosity1	.677	.112	.313	.382	.189
Religiosity2	.112	.216	.064	.129	.140
Religiosity3	.313	.064	.754	.284	.125
Religiosity4	.382	.129	.284	.634	.276
Religiosity5	.189	.140	.125	.276	.708

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
Religiosity1	17.30	4.349	.581	.397	.625
Religiosity2	16.30	5.912	.394	.188	.708
Religiosity3	17.57	4.692	.418	.229	.698
Religiosity4	16.85	4.241	.654	.447	.593
Religiosity5	16.70	4.849	.394	.223	.706

Scale Statistics

Mean	Variance	Std. Deviation	N of Items
21.18	7.018	2.649	5

Scale: Motivation

Case Processing Summary

		N	%
Cases	Valid	176	100.0
	Excluded[a]	0	.0
	Total	176	100.0

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.798	.816	5

Item Statistics

	Mean	Std. Deviation	N
Motivation1	4.78	.465	176
Motivation2	4.65	.565	176
Motivation3	4.64	.589	176
Motivation4	4.63	.713	176
Motivation5	4.35	.757	176

Inter-Item Covariance Matrix

	Motivation1	Motivation2	Motivation3	Motivation4	Motivation5
Motivation1	.216	.136	.172	.148	.122
Motivation2	.136	.319	.205	.180	.146
Motivation3	.172	.205	.347	.242	.192
Motivation4	.148	.180	.242	.509	.188
Motivation5	.122	.146	.192	.188	.572

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
Motivation1	18.27	4.051	.619	.434	.758
Motivation2	18.40	3.773	.607	.418	.752
Motivation3	18.42	3.456	.740	.584	.710
Motivation4	18.43	3.400	.577	.362	.763
Motivation5	18.70	3.558	.454	.211	.812

Scale Statistics

Mean	Variance	Std. Deviation	N of Items
23.06	5.425	2.329	5

Scale: Job Satisfaction

Case Processing Summary

		N	%
Cases	Valid	176	100.0
	Excluded[a]	0	.0
	Total	176	100.0

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.806	.802	6

Item Statistics

	Mean	Std. Deviation	N
Satisfaction1	3.89	.955	176
Satisfaction2	4.10	.829	176
Satisfaction3	3.89	.929	176
Satisfaction4	4.36	.679	176
Satisfaction5	4.17	.831	176
Satisfaction6	4.42	.663	176

Inter-Item Covariance Matrix

	Satisfaction1	Satisfaction2	Satisfaction3	Satisfaction4	Satisfaction5	Satisfaction6
Satisfaction1	.913	.360	.702	.196	.345	.145
Satisfaction2	.360	.687	.394	.191	.171	.202
Satisfaction3	.702	.394	.863	.291	.350	.229
Satisfaction4	.196	.191	.291	.461	.212	.161
Satisfaction5	.345	.171	.350	.212	.691	.196
Satisfaction6	.145	.202	.229	.161	.196	.439

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
Satisfaction1	20.95	7.935	.650	.655	.755
Satisfaction2	20.73	9.020	.530	.321	.783
Satisfaction3	20.94	7.551	.770	.706	.722
Satisfaction4	20.47	9.782	.494	.295	.791
Satisfaction5	20.66	9.104	.508	.298	.788
Satisfaction6	20.41	10.038	.444	.262	.800

Scale Statistics

Mean	Variance	Std. Deviation	N of Items
24.84	12.344	3.513	6

Scale: Happiness

Case Processing Summary

		N	%
Cases	Valid	176	100.0
	Excluded[a]	0	.0
	Total	176	100.0

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.705	.797	5

Item Statistics

	Mean	Std. Deviation	N
Happiness1	3.91	1.563	176
Happiness2	3.95	.806	176
Happiness3	4.04	.751	176
Happiness4	3.75	.804	176
Happiness5	3.22	1.171	176

Inter-Item Covariance Matrix

	Happiness1	Happiness2	Happiness3	Happiness4	Happiness5
Happiness1	2.444	.350	.278	.247	.121
Happiness2	.350	.649	.533	.451	.484
Happiness3	.278	.533	.564	.381	.409
Happiness4	.247	.451	.381	.646	.409
Happiness5	.121	.484	.409	.409	1.370

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
Happiness1	14.96	8.564	.218	.086	.831
Happiness2	14.92	8.714	.765	.820	.565
Happiness3	14.84	9.236	.701	.777	.596
Happiness4	15.13	9.379	.605	.495	.619
Happiness5	15.66	8.786	.410	.282	.680

Scale Statistics

Mean	Variance	Std. Deviation	N of Items
18.88	13.001	3.606	5

APPENDIX 4

Table A3-1
Description of Independent Variables

INDEPENDENT VARIABLES	DESCRIPTION
TAGAMA	Religiosity level
TMOTIVASI	Work motivation level
TPUAS	Job satisfaction level
TGEMBIRA	General happiness level
umur31KE35	Age - between 31 to 35 years old
umur36KE40	Age - between 36 to 40 years old
umur41KE45	Age - between 41 to 45 years old
umur46KE50	Age - between 46 to 50 years old
umur51KE55	Age - between 51 to 55 years old
LELAKI	Gender – Male
KAHWIN	Marital status – Married
LAIN2	Marital status – other status except single
BUSECON	Major – Business, Economy, Management or related studies
SAINS	Major – science or applied science
SAINSSOSIAL	Social science – Literature, Sociology, communications etc
BUKANAKAUN	Professional qualification – Yes, but non-accounting
TIADAPRO	Professional qualification – No
AFE	Service with Accounting firm – Yes
L-5TAHUN<10	Experience in IRBM – 5 and up but less than 10 years
L-10TAHUN<15	Experience in IRBM – 10 and up but less than 15 years
L-15TAHUN<20	Experience in LHDNM – 15 and up but less than 20 years
L-20ATAS	Experience in LHDNM – 20 years or more
AL-2TAHUN<6	Overall field tax audit experience – 2 and up but less than 6 years
AL-6TAHUN<10	Overall field tax audit experience – 6 and up but less than 10 years
AL-ATAS10	Overall field tax audit experience – 10 years or more
ALC-6AHUN<10	Field tax audit experience (company taxpayer only) – 6 and up but less than 10 years
ALC-10ATAS	Field tax audit experience (company taxpayer only) – 10 years or more
P-LULUS	Passed IRB's preliminary course – Yes
A-LULUS	Passed IRB's advance course – Yes
audluar1HGGA2	Number of field audit courses attended to date – 1 to 2
audluar3HGGA4	Number of field audit courses attended to date – 3 to 4
audluar5ATAS	Number of field audit courses attended to date– 5 or more